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AN ANALYSIS OF INTERNAL CONTROLS FOR DOD CONTRACT MANAGEMENT

December 2015

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According to a 2010 report, the Department of Defense (DOD) spends over $300 billion each year on contracts to sustain the organization as an operational military force. Since 1992, the Government Accountability Office (GAO) has identified contract management within the DOD as an area for high risk in fraud, waste, abuse, and mismanagement, and the DOD has not provided enough assurance that they are using sound practices in procurement. Failures to meet objectives in cost, schedule, and performance have led to cost overruns, reduced buying power, and a reduction in capabilities throughout contract administration processes.

The purpose of this research was to assess internal controls within the DOD contract management processes. This assessment was conducted by analyzing reports from the DOD Inspector General, which noted deficiencies in the contract management processes and weaknesses in the internal control framework. The results of this analysis indicate that, overall, the highest numbers of deficiencies in the DOD were found in Procurement Planning, Solicitation Planning, and Contract Administration. In addition, overall, the highest numbers of weaknesses were found in Contract Environment, Contract Activities, and Risk Assessment. This research may help the DOD address identified problems within internal controls and contract management processes.

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AN ANALYSIS OF INTERNAL CONTROLS FOR DOD CONTRACT MANAGEMENT

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ABSTRACT

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LIST OF ACRONYMS AND ABBREVIATIONS

BCA	Business Case Analysis
BPA	Blanket Purchase Agreement
CICA	Competition in Contracting Act
CPAF	Cost Plus Fixed Fee
CPIF	Cost Plus Incentive Fee
CPPC	Cost Plus a Percentage of Cost
CR	Cost Reimbursement
CS	Cost Sharing
COR	Contracting Officer Representative
COTR	Contracting Officer Technical Representative
COSO	Committee of Sponsoring Organizations
DAU	Defense Acquisition University
DAWDF	Defense Acquisition Workforce Development Fund
DAWSSB	Defense Acquisition Workforce Senior Steering Board
DAWIA	Defense Acquisition Workforce Improvement Act
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DFARS	Defense Federal Acquisition Regulation Supplement
DOD	Department of Defense
DODIG	Department of Defense Inspector General
EESA	Emergency Economic Stabilization Act
eSRS	Electronic Subcontracting Reporting System
EVM	Earned Value Management
FAPIIS	Federal Awardee Performance and Integrity Information System
FAR	Federal Acquisition Regulation
FARA	Federal Acquisition Reform Act
FASA	Federal Acquisition Streamlining Act
FBO	Federal Business Opportunities
FFP	Firm Fixed Price

FP/EPA	Fixed Price with Economic Adjustment
FY	Fiscal Year
GAO	General Accountability Office
GPC	Government Purchase Card
GPE	Government Point of Entry
GSA	General Services Administration
IDIQ	Indefinite Delivery Indefinite Quantity
IFB	Invitation for Bid
IFN	Invitation for Negotiations
IPT	Integrated Product Team
ITB	Invitation to Bid
LPTA	Lowest Price Technically Acceptable
MIRR	Material Inspection and Receiving Report
NDAA	National Defense Authorization Act
OCO	Overseas Contingency Operation
OGE	Office of Government Ethics
OPM	Office of Personnel Management
OMB	Office of Management and Budget
OUSD[AT&L]	Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics
PPIRS	Past Performance Information Retrieval System
PEO	Program Executive Office
PWS	Performance Work Statement
QAE	Quality Assurance Evaluators
QAR	Quality Assurance Representative
R&D	Research and Development
RDECOM	Research, Development, and Engineering Command
RFP	Request for Proposal
SAA	Source Selection Authority
SAT	Simplified Acquisition Threshold
SAP	Simplified Acquisition Procedures
SARA	Services Acquisition Reform Act

SE	System Engineering
SECM	System Engineering Career Model
SERC	System Engineering Research
SoS	System of System
SOO	Statement of Objectives
SOW	Statement of Work
STEM	Science, Technology, Engineering, Math
SSA	Source Selection Authority
SSAC	Source Selection Advisory Council
SSEB	Source Selection Evaluation Board
SST	Source Selection Team
WAWF	Wide Area Work Flow

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This research paper has benefited from data made available via publically accessible DODIG reports and by the individuals and the divisions involved in internal controls and contract management for the Department of Defense.

To Dr. Juanita Rendon and Dr. Rene G. Rendon, we owe much gratitude. Both have, above all, influenced our thinking, and without their faith and confidence in our abilities, our research paper would not have been successful. They both suggested that we critique our sources for the most clear and reliable sources available. We have examined many documents and collections of data. We have tried to be fair in evaluating all of our documents and the data we collected. We relied on experienced professionals such as Drs. Rendon and Rendon when data became unclear. We are grateful to these professors for the long hours they spent in helping us clarify the analysis we conducted in our assessment of internal controls within the Department of Defense contract management.

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I. INTRODUCTION

A. BACKGROUND

The Department of Defense (DOD) spends over $300 billion dollars each year on contracts to sustain the organization as an operational military force (Government Accountability Office [GAO], 2015). The increase in contract actions in the last decade has led to increased problems in contract management demonstrating the need for greater improvements in these areas (Department of Defense Office of Inspector General [DODIG], 2009). Since 1992, the GAO (2015) has identified contract management within the DOD as an area for high risk in fraud, waste, abuse, and mismanagement. The GAO reports that the DOD has not provided enough assurance that they are using sound practices in procurement. The GAO has also identified that many DOD programs are failing to meet objectives in cost, schedule, and performance (2015). These failures have led to an increase in cost overruns, reduced buying power, and a reduction in capabilities. The DODIG (2009) audit reports also identified many deficiencies in the DOD acquisition and contract administration processes. These problems necessitate a response from the DOD to Congress and the American people.

The DOD acknowledges these concerns and has attempted to improve its competencies by increasing the size of the acquisition force and by improving procurement training for its workforce. For example, from 2008 to 2014, the DOD increased its acquisition workforce size from about 126,000 to 150,000 (Government Accountability Office [GAO], 2015). Also, the Defense Contract Audit Agency (DCAA) hired 500 more auditors in 2010 with plans to hire 1,000 additional auditors by 2015 (Office of Management and Budget [OMB], 2015). The DOD has further conducted competency assessments of the acquisition workforce to identify the skills and capabilities needed to fix the issues in contract management (GAO, 2015).

The DOD as a whole has not been able to achieve consistent practices in contract management, even with an increase in acquisition workforce and an improvement in procurement training. The DOD still lacks auditability in contract management that

ensures integrity, accountability, and transparency. Auditability is highly dependent on competent people, capable processes, and effective internal controls (Rendon & Rendon, 2015). According to the DODIG (2009), many of the deficiencies in the DOD acquisition and contract management processes are a result of material internal control weaknesses. In order to reduce weaknesses and ensure auditability in contract management, the DOD needs to have effective internal controls (Rendon & Rendon, 2015).

B. PURPOSE OF RESEARCH

The purpose of this research is to assess internal controls within the Department of Defense contract management. This assessment was conducted by analyzing DODIG-reported deficiencies in the contract management processes with relation to weaknesses found in the internal control framework.

C. RESEARCH QUESTIONS

This research addresses the following research questions:

- Which contract management processes are related to the DODIG-reported deficiencies?
- Which internal controls components are related to the DODIG-reported weaknesses?
- What patterns or consistencies does the data from the DODIG reports show regarding the deficiencies in contract management processes and weaknesses in internal control components?

D. METHODOLOGY

This research includes a review of recent literature regarding internal controls and contract management, specifically on the integration of internal controls in contract management. The literature review consists of government reports, which describe the importance of contracting within the DOD, outline contract management processes, and explain internal control components. Additionally, literature was reviewed regarding auditability theory and the general characteristics of the Committee of Sponsoring Organization of the Treadway Commission (COSO) internal control framework. The

literature review is followed by an analysis of the DODIG reports to identify weaknesses in internal controls within contract management processes. Finally, this report concludes with recommendations for improvements in the DOD's contract management processes and internal controls and identifies areas for further research.

E. BENEFITS AND LIMITATIONS

This research assesses deficiencies in the DOD's procurement processes and weaknesses in the internal controls based on the analysis of the DODIG's reported deficiencies in contract management. One aspect of this analysis describes the relationship between the DODIG's reported contracting deficiencies, internal controls, and contract management processes. The results will provide the DOD with recommendations on how to improve internal controls and contract management processes.

This research is limited to collecting and analyzing the DODIG's reports identifying deficiencies in DOD contract management. Another limitation is that the DODIG's reports used in this research are from 2003 to 2010.

F. ORGANIZATION OF REPORT

This research is composed of five chapters, including this introduction chapter. Chapter II consists of a literature review of the DOD's contracting environment and current problems, DOD initiatives to address those current problems, auditability theory, contract management processes, and internal control components. Building on this literature review, Chapter III provides the methodology for this research, examines the source of data, discusses the development of the assessment tool, and describes how data was analyzed. Chapter IV provides the research findings, the analysis of the findings, and the implications of the findings. This chapter also provides recommendations for how the DOD can improve contract management processes and internal controls. Chapter V consists of a summary of the research, the conclusions, and areas for further research.

G. SUMMARY

This chapter provided an introduction and background to this research. In this chapter, the purpose of the research, the research questions, and the methodology used in this research were discussed. Additionally, this chapter provided the benefits and limitations of the research as well as the organization of this report. The next chapter provides the foundation for the research by presenting a literature review that covers the DOD contracting environment and its current problems, DOD initiatives to address those current problems, auditability theory, contract management processes, and internal control components.

II. LITERATURE REVIEW

A. INTRODUCTION

This literature review explains the DOD contracting environment, its current problems, and the DOD's initiatives in response to these problems. It also covers auditability theory, contract management processes, and internal control components. This review shapes the essential organization of information for this research and provides a baseline for following chapters.

B. DEPARTMENT OF DEFENSE CONTRACTING ENVIRONMENT

DOD contracting comprised 8% of all federal government spending in 2015. The DOD's budget has increased from $190 billion in fiscal year (FY) 2000 to the current $290 billion in FY 2015 (Schwartz, Ginsberg, & Sargent, 2015). DOD contracting in FY 2014 was comprised of 10% research and development (R&D) contract obligations, 45% of services contract obligations, and 45% of goods and supplies contract obligations (Schwartz, Ginsberg, & Sargent, 2015). The government must ensure they have the appropriate workforce and contract management processes to manage these areas mentioned effectively and must provide verification that the citizen taxpayer is receiving sufficient quality and quantity for contracted services and supplies (Schwartz, Ginsberg, & Sargent, 2015). Because of acquisition workforce issues, contracting techniques and processes non-compliance, and failure to adhere to policy and statutory requirements in the DOD, contracting efforts continue to reflect a high risk. Some complex issues in the contracting environment include having the right number of people and the appropriate resources to reduce risk, the use of various methods to monitor progress, and the implementation of corrective actions needed to reduce risk (GAO, 2015). The acknowledged GAO issues have resulted in the DOD applying several initiatives to help mitigate the risk.

1. Impact

The contracting impact to the DOD is important to have oversight on because of high amount of contracts awarded for goods and services. In FY 2015, the DOD disbursed over $200 billion in contracts awarded with 1,335,179 transactions (OMB, 2015). The DOD as a whole spent $560.4 billion total, including $64.2 billion in funds for overseas contingency operations (OCO) (OUSD [Comptroller], 2015). The immense number of dollars spent and transactions processed is problematic to the acquisition workforce because the workforce has been inadequate in quantity and skill level of people (GAO, 2015).

2. Problems

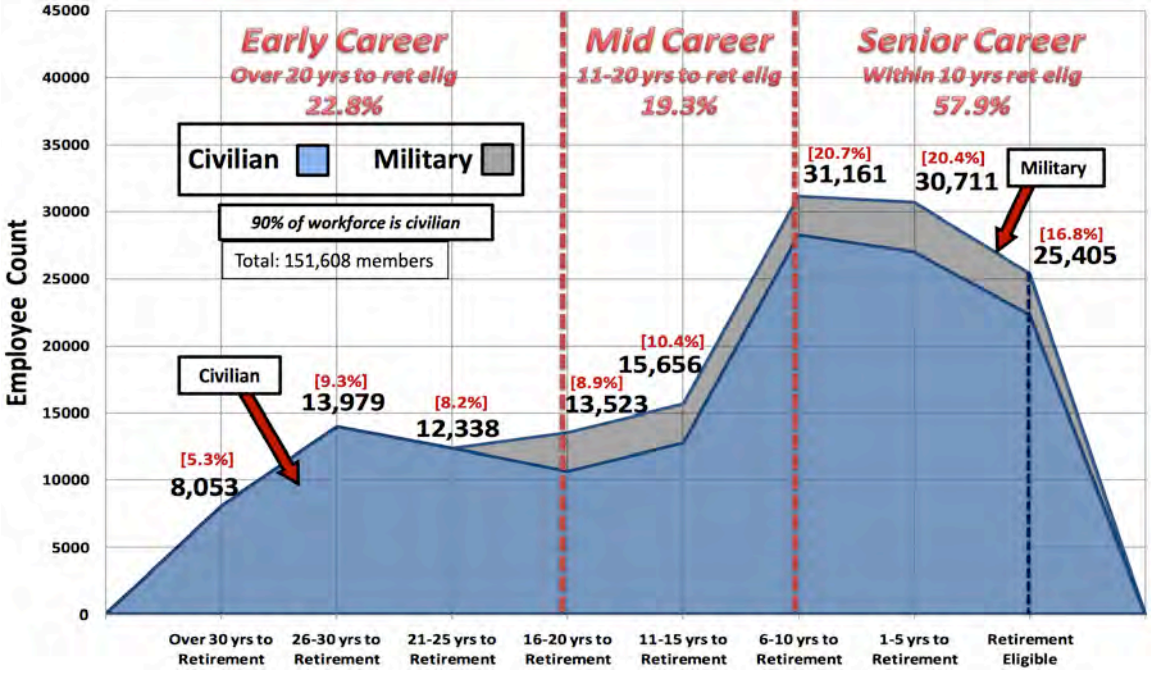
Some of the problems with DOD contracting have been in acquiring and retaining the proper acquisition workforce, complying with contract management policy, and providing advanced training for personnel. These problems have led the GAO to continue to assess contract management as a "high risk" since 1992 (GAO, 2015).

The first problem is acquiring and retaining the proper acquisition workforce. To properly manage the acquisition of goods and services, the DOD will have to address the proper workload ratio to contract transactions processed, as well as attrition due to retirement (Defense Acquisition University [DAU], 2010). Denis states, "The real problem is that the public contracting workforce is insufficient in both numbers and training. The number of contracting professionals has not kept the pace with contracting dollars, and public agencies have not sufficiently invested in the training of their contracting staffs" (Denis, 2009, p. 62). This problem is partially due to budget constraints and people retiring.

Leadership in the DOD acknowledged the workforce problem in a DOD Strategic Capital Plan report, which cited increased contract actions from $138 billion in 2001 to $384 billion in 2009 (Defense Acquisitions University, 2010). Simultaneously, the workforce decreased by 2.6%. The DOD Strategic Capital Plan updated report of 2010 also explains that 16% of the civilian acquisition workforce was eligible to retire in 2009 with 37.5% becoming eligible to retire by 2020 (Defense Acquisitions University, 2010).

Rendon and Snider (2008) state, “The pending departure of the Baby Boomer generation contracting workforce will require the DOD to continue to take action to recruit, retain, and train the contracting workforce.” Figure 1 illustrates the impact of an aging workforce.

Figure 1. Overall DAW (Military & Civilian) Retirement Eligibility Distribution—FY12Q1 (12-31-11)



Source: Defense Acquisition University (DAU). (2012). *Defense Acquisition Workforce Update: 2012 Acq Demo Conference*. Retrieved from https://dap.dau.mil/workforce/Documents/AcqDemo/Keynote%20Address%20-%20AcqDemo%20HCI%20brief.pdf

The second problem is getting the acquisition workforce to comply with contracting policies within each of the contract management processes, which are procurement planning, solicitation planning, solicitation, source selection, contract administration, and contract closeout (Rendon & Snider, 2008, p.164). A lack of oversight in contract management’s compliance with policy creates a loss of confidence with the stakeholders.

The third problem, according to the GAO, is that the DOD needs to adhere to statutory requirements, such as assessments of the critical skills and competencies of its workforce. The DOD needs to ensure that they have the correct number of people with appropriate skills and capacities, sufficient tools, and adequate data to make informed acquisition decisions. These factors are critical for achieving the warfighters' missions. DOD leadership involvement is essential to building on the progress made in addressing these ongoing problems (DAU, 2010).

C. DEPARTMENT OF DEFENSE INITIATIVES

The DOD has responded with various initiatives including making improvements in the acquisition workforce by hiring more personnel, adding new policies and guidance, re-emphasizing compliance with policy, and adding supplementary or advanced acquisition training for personnel. The defense acquisition workforce initiatives are recruiting, hiring, training, developing, and retaining the workforce. The DOD resolved some of the problems with the acquisition workforce by increasing the number and the quality of their personnel. For example, in 2008, the DOD workforce consisted of 126,000 personnel, processing 1,608,959 contract transactions (DAU, 2010). In 2014, the workforce had expanded to 150,000 personnel, processing 1,361,325 contract transactions (DAU, 2010).

In 2005, the undersecretary of defense for acquisition, technology, and logistics (USD[AT&L]) helped form a Defense Science Board Task Force (DSBTF) led by Dr. William Schneider. The DSBTF reviewed oversight of management and acquisition activities and assessed policies to recommend changes to internal controls within the DOD. The DSBTF advised the DOD to hire more auditors and conduct more audits (USD[AT&L], 2005). The National Defense Authorization Act (NDAA) of 2008 section 852 empowered the workforce and improved its acquisition support with a Defense Acquisition Workforce Development Fund (DAWDF), which was established by Title 10 U.S.C. 1705. In response to these DSBTF initiatives, the DOD hired an average of 200 to 300 auditors from 2005 to 2009, and hired 500 more auditors in 2010 to assist with

massive amounts of contract actions. The DOD proposed plans to hire 1000 more auditors by 2015 (OMB, 2015).

In 2009, in the USD(AT&L), the Honorable Ashton B. Carter re-established the Defense Acquisition Workforce Senior Steering Board (DAWSSB) to help advance acquisition workforce initiatives. The Office of Personnel Management (OPM) implemented a phased retirement plan in 2014 that allowed full-time employees to work a part-time schedule while beginning to draw benefits. The hiring initiatives appeared to be on track as of 2010, according to USD(AT&L) Carter, who said, "The Department must act now on its strategy to increase its acquisition management, technical and business capability, and capacity to manage and oversee the acquisition process from start to finish" (DAU, 2010, p. 3). In this quote, Carter is discussing tools used by the acquisition workforce, such as contract management policies and DAWDF funding. The Army, Navy, and Air Force have acted in response to the USD(AT&L) order by continuing to use the DAWDF section 852 to empower their acquisition workforce by closing the workforce gaps and adjusting human capital strategies.

The DOD's Program Executive Officers (PEOs) are constantly developing new methods to help train their workforce. In addition, PEOs are using resources offered by the DOD, academia, and industry to enhance the workforce's knowledge. For example, the Army has partnered with the Naval Postgraduate School to create a master of science in systems engineering degree and a master of business administration in acquisition and contract management. The Army's Research, Development, and Engineering Command (RDECOM) has established a supportive research and development agreement with the Systems Engineering Research Center (SERC) to develop new methods and approaches for complex System of System (SoS) problems. RDECOM and SERC are also working with DAU to enhance courses such as SYS 350, Systems Engineering (SE) technical leadership course. The Navy is using an Acquisition Workforce Strategic Plan to grow the workforce by 16% from 2010 to 2015. The Navy has a close relationship with the Naval Postgraduate School because of the branch affiliation and has implemented a systems engineering career model (SECM) to empower its workforce. The Air Force enhanced its skills to attract and shape the best possible workforce using a program called

Bright Horizons, which is a science, technology, engineering, and math (STEM) strategic roadmap program. The Air Force also created a career path tool to help manage and assist airmen in their career paths (DOD [DT&E], 2012)

Another initiative was to improve the Defense Acquisition Workforce Improvement Act (DAWIA) certification levels in the workforce by positions. DAWIA provides for the proficiency levels of personnel through mandatory requirements in education, training, and experience. In 2009, only 59% of the workforce met the DAWIA certification requirements. By 2014, the workforce was able to meet 79% of the DAWIA certification requirements (DAU, 2015b). Additionally, from 2009 to 2014, there was a 33% increase in the acquisition workforce's ability to meet or exceed DAWIA certification requirements, demonstrating the efficacy of this initiative (DAU, 2015b).

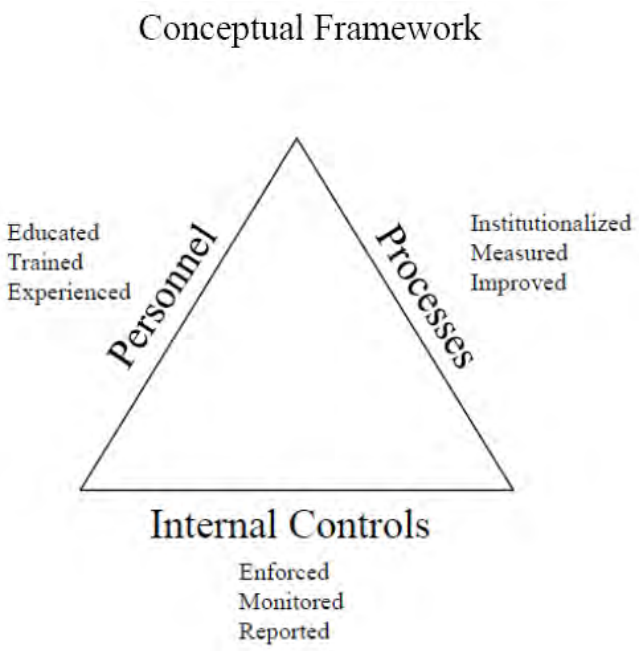
The Honorable Frank Kendall, USD(AT&L), also helped try to address educating the acquisition workforce by launching advanced certification criteria with his memorandum Better Buying Power 3.0 (OUSD[AT&L], 2014). During 2010 to 2015, the Secretary of Defense has added supplementary or advanced acquisition training for personnel by expanding contracting officer representative (COR) training and enhancing training for contract specialists, program managers, systems engineers, and pricing personnel. In addition, the Secretary of Defense has implemented a new curriculum for high impact and emerging acquisition needs and new certification structures and training for the "Big A" workforce (DAU, 2010). The DOD's response to its workforce challenges was hiring additional workforce, providing additional training and guidance, and establishing higher certification level requirements, but what is missing in the response is the focus on internal controls. The next section includes a discussion of auditability theory and the importance of internal controls in assuring auditability in organizations.

D. AUDITABILITY THEORY

The DOD needs to be concerned with auditability because auditability is essential for contract management organizations to ensure integrity, accountability, and transparency. The theory of auditability encompasses the following three aspects of

governance, which include competent personnel, capable processes, and effective internal controls. Figure 2 illustrates the relationship between these three aspects of governance. Hence, the DOD desires to improve the function of a competent procurement workforce, capable procurement processes, and effective internal controls to achieve its contract management goals and objectives (Rendon & Rendon, 2015). The three aspects of auditability are discussed in the following subsection.

Figure 2. Auditability Triangle



Source: Rendon, R. G., & Rendon, J. M. (2015). Auditability in public procurement: an analysis of internal controls and fraud vulnerability. Manuscript submitted for conference proceedings.

1. Competent People

Auditability relates to the competency of personnel engaged in the contract management functions of the organization. It encompasses the education, training, and experience requirements of team members for each function in the organization (Rendon & Rendon, 2015). The Defense Acquisition Workforce Improvement Act (DAWIA) provides for the competency of personnel through mandatory requirements in education, training, and experience. DAWIA ensures that each member of the acquisition workforce

is qualified to perform his or her particular function. When Carter was the undersecretary of defense (AT&L), he said, “Workforce size is important, but quality is paramount” (DAU, 2015b).

2. Capable Processes

Auditability also relates to the capable processes of an organization, specifically with their contract management activities. As discussed previously, contract management has six processes, which include procurement planning, solicitation planning, solicitation, source selection, contract administration, and contract closeout (Rendon and Snider, 2008, p.164). The capabilities of these processes are measured with regards to processes that are “fully-established, institutionalized, mandated, integrated with other organizational processes, periodically measured, and continuously improved” (Rendon & Rendon, 2015, p. 7).

3. Effective Internal Controls

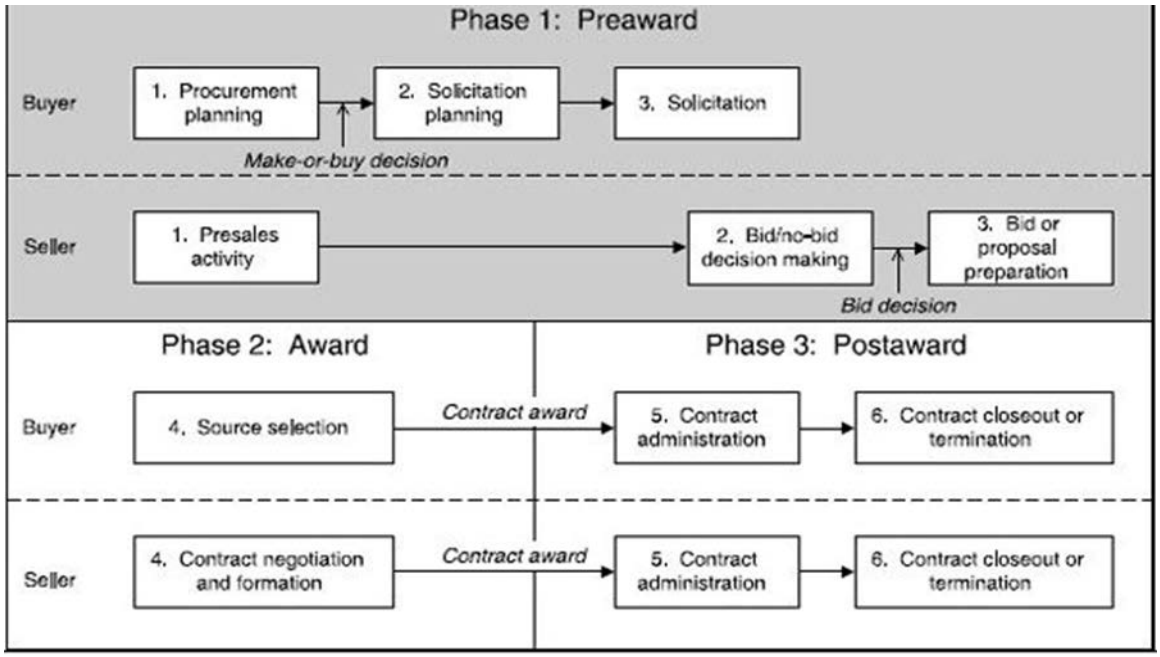
The internal controls aspect regarding auditability relates to implementing effective internal controls in organizations in order to ensure compliance with laws and regulations, ensure activities are monitored, and ensure material weaknesses are reported (Rendon & Rendon, 2015). Internal controls are typically discussed in regards to the five internal control components established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In 2013, the COSO established 17 principles associated with each of the five internal control components. The next section further discusses details about the contract management processes and internal controls.

E. CONTRACT MANAGEMENT PROCESSES

Contract management processes from the government perspective are divided into three main phases called the pre-award, award, and post award. These phases are then sub-divided into the six contract management processes, which include procurement planning, solicitation planning, solicitation, source selection, contract administration, and contract closeout (Garrett, 2010, p. 20). The pre-award phase consists of procurement planning, solicitation planning, and solicitation, wherein the government decides to make

or buy the product or service, and the seller decides to bid or not bid on the project. The next phase is the award phase, which consists of source selection, wherein the government awards the contract to the contractor in a well-defined relationship based on a written agreement, which details the rights and responsibilities of each party. The last phase is the post-award phase, in which the responsibilities of contract administration and contract closeout are conducted. Figure 3 outlines the three phases and six processes of contract management visually, but the importance of these six processes are described in more specificity in later sections.

Figure 3. Contract Management Processes



Source: Garrett, G. A. (2010). *World class contracting* (5th ed.). Riverwoods, IL: CCH, p. 80.

1. Procurement Planning

The contracting activity starts with the procurement planning phase as seen in Figure 3. The procurement planning phase is part of the pre-award phase and is an important part of contract management because it establishes the foundation for future successes or problems. The procurement planning process includes determining and

defining the procurement requirement, conducting market research, and developing requirements documents (Garrett, 2010, p. 80). Garrett summarizes the first process:

> Procurement planning is the process of identifying which business needs can be best met by procuring products or services outside the organization. This process involves determining whether to procure, how to procure, what to procure, how much to procure, and when to procure. (Garrett, 2010, p. 81)

To conduct procurement planning appropriately, the government first defines the requirement, then conducts market research, and finally develops requirements documents to ensure the products or services will achieve quality, cost, schedule, and performance outcomes.

a. Determining and Defining the Procurement Requirement

In procurement planning, the first step in planning is defining what is required and developing the acquisition plan. The first question to address is whether the government is looking to purchase supplies or services. The customers or end users must decide what their requirements are in order to purchase the correct supplies or services. The customers should also be involved in the procurement planning process, and they should be asking several questions that will help determine the right mechanism to use in the procurement of the requirements. According to Federal Acquisition Regulation (2015) Part 7, these questions include:

- Should the customer go with commercial or government resources for the required supplies and services?
- Does the customer want to outsource the requirement or accomplish it together with a contractor?
- Should the customer buy or lease a product?
- Has the government purchased similar products or services?
- What is the timeline for the supplies or services needed?
- Is the supply or service the customer wants to buy inherently governmental? (Federal Acquisition Regulation, 2015, Part 7)

The answers to these questions are based on the need of the organization to properly define the requirement and on the approval of key leadership and stakeholders (Chang, 2013). In most general acquisitions, the stakeholders are the customer's organization, technical experts, key leadership, and the contracting officer within the originating activity. In larger acquisitions, stakeholders are appointed to an integrated product team (IPT) that includes some of the following personnel: a program manager, a contracting officer, a contracting officer representative, a technical lead, a technical support subject-matter expert, a financial officer, a legal officer, and personnel within the customer's organization. The organization's key leadership should ensure that the originating requester, the identified subject-matter experts, and the contracting officer understand the requirements to ensure that their mission is successful.

b. Conducting Market Research

Market research is determining who sells what the buyer requires, who else buys what the buyer requires, and how they buy it (Garrett, 2010)? Market research also helps determine if the capabilities to perform the effort are available commercially, non-developmentally, or by using government resources. The necessary extent of market research varies depending on several factors: urgency, complexity, dollar value, and past experience. The agency should determine if the requirement could be provided by competition or sole source during market research. Competition is also an important part of government contracting and is mandated according to the FAR Part 6. The contracting officer must ensure that the legitimate needs of the requirement are identified and evaluate the tradeoffs to acquire the item. Sources of market research are evaluated based on public information on the company, company feedback, and previous buying experience with the business. Understanding the requirements provides a foundation to determine what types of strategies to employ, the type of contracting methods to use, and exceptions that may apply to the procurement process.

c. Developing Requirements Documents

The requirements documents in the procurement planning phase depend on the complexity of the requirement. According to Rendon and Snider (2008), the requirements

documents become a part of the solicitation package. The solicitation package is usually developed by either an invitation for bid (IFB) or a request for proposal (RFP), depending on the selected procurement process. The FAR Part 11 prescribes which documents are mandated for use by law, but also allows for the use of existing or modified documents if it meets the needs of the agency. The requirements documents describe the desired outcomes of the supplies or services in the procurement process (Rendon & Snider, 2008). Different types of requirements documents are utilized based on the agencies' specific requirements. A Performance Work Statement (PWS) is a performance-based document that explains the required results in well-defined, precise, and unbiased terms with measurable outcomes. A Statement of Objectives (SOO) is a document that is prepared by the government describing the required performance objectives. A Statement of Work (SOW) establishes and describes all non-specific requirements for the contractors work performance with the use of precise documents (DAU, 2015a). FAR Part 11 defines the order of precedence for requirements documents within the procurement process. The requirements documents order of precedence is stated as follows:

1. Documents mandated for use by law;
2. Performance-oriented documents (e.g., a PWS or SOO);
3. Detailed design-oriented documents;
4. Standards, specifications, and related publications issued by the Government outside the Defense or Federal series for non-repetitive acquisition of items. (FAR, 11.101)

2. Solicitation Planning

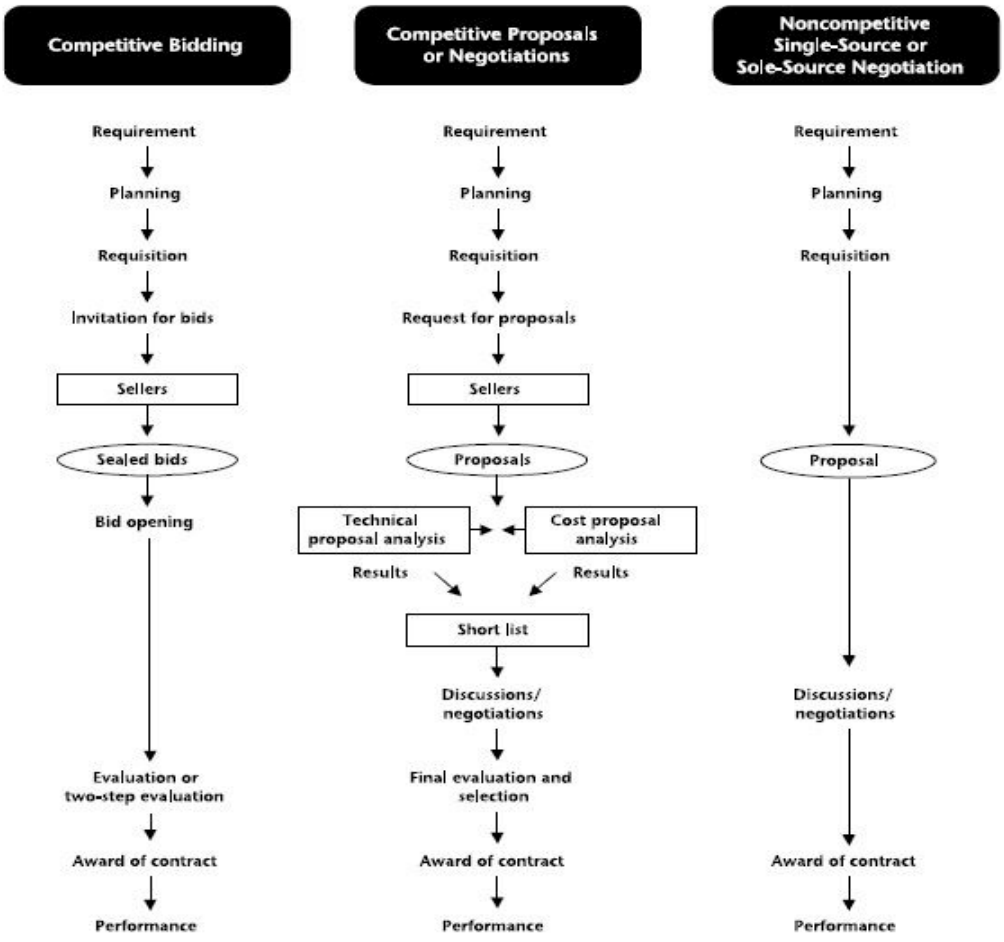
Solicitation planning is also part of the pre-award phase and comes after the completion of the procurement planning process. Solicitation planning utilizes the findings discovered from market research and the documents produced to complete the plan. Rendon and Snider (2008) state that solicitation planning is "the process of preparing the documents needed to support the solicitation. This process involves documenting program requirements and identifying potential sources" (Rendon & Snider, 2008, p. 167). The solicitation planning process includes determining the appropriate procurement method, selecting the appropriate contract type, and establishing evaluation

criteria. The evaluation criteria are then applied to selecting the successful awardee(s) (Rendon & Snider, 2008).

a. Determining the Appropriate Procurement Method

Determining the appropriate procurements method to use for a supply or service can seem challenging due to a myriad of reasons such as cost, availability of sources, complexity, and potential risk. The FAR is helpful to the buyer in that it establishes mandated ceiling thresholds. The Government Purchase Card (GPC) is the preferred method when using the micro-purchase method for procurement because it allows the customer the ability to get mission essential requirements acquired for simple buys. As of October 1, 2015, the current micro-purchase base threshold is $3,500 (FAR 2.101). FAR Part 13 Simplified Acquisition Procedures (SAP) details the procedures outlined within the Simplified Acquisition Threshold (SAT), which is not to exceed $150,000 (FAR 13.003(b)(1)). For acquisitions above the SAT, FAR Part 15.101 gives the acquisition team the ability to utilize best value continuum to determine the complexity and potential risk in procurement and allows them to choose a sealed bid and/or a negotiated procurement. Lowest Priced Technically Acceptable (LPTA) is commonly used for supplies or services that are easily defined and the price is the most influential consideration. The tradeoff process is appropriate when price is not the influential consideration and the requirement is more complex in nature with higher risk. The government must also decide how to compete the procurement requirements by assessing if they will award a contract based on full and open competition or under sole source (Garrett, 2010). Figure 4 outlines the competitive and non-competitive processes of awarding the contract with specific steps to help guide the contracting officer and team in developing the award of the contract.

Figure 4. Comparison of Contracting Methods



Source: Garrett, G. A. (2010). *World class contracting* (5th ed.). Riverwoods, IL: CCH, p. 76.

Public policy, specifically FAR 6.101, requires "that contracting officers shall promote and provide for full and open competition in soliciting offers and awarding Government contracts" (FAR 6.101, 2015). The Competition in Contracting Act of 1984 (CICA) mandates promoting competition in awarding government contracts, and it was re-emphasized by President Obama in a March 2009 memorandum on government contracting (Manuel, 2011). The CICA remains a foundation for competition 30 years later as it places efficiency in the agencies' missions, helps to prevent fraud, and benefits the overall best public interest (Manuel, 2011).

Another important public policy is the Federal Acquisition Streamlining Act of 1994 (FASA) that allowed for a shift in preference from the acquisition of items developed specifically for the government to the acquisition of commercial items. The FASA promotes maximum use of commercial acquisition to meet the government's requests in addition to allowing increased commercial market practices. Source selection must be made on the best value and not always the lowest price basis. The FASA's preference for commercial items is included in FAR 1.102 (OUSD[AT&L], 2011). The FASA was then followed by the Federal Acquisition Reform Act of 1996 (FARA), which placed efficiency on fullfilling government requirements by amending the FAR to ensure full and open competition is implemented with the government's best interest in mind (Manuel, 2011). In 2003, the Services Acquisition Reform Act (SARA) was passed allowing special types of contracts to be treated as commercial items in certain conditions.

From 2006 to 2009, a swinging pendulum effect took place in the DOD commercial world, tightening the policies that had once been encouraged. The DOD Authorization Act of 2006 became more restrictive in commercial acquisition procedures for major weapon systems in that it required the secretary of defense to determine whether a certain procurement would meet the definition of a commercial item, to determine that national security objectives would meet the criteria for purchase, and to give Congress a 30-day notice before purchase. In 2008, the National Defense Authorization Act limited terms for major weapon systems (DFARS 234.7002), and in 2009, it restricted commercial services "of a type" sold on the commercial market (Stockman, Ross, Bongiovi, & Sparks, 2011; FAR 15.403-1(c)(3)(ii)). However, the Emergency Economic Stabilization Act (EESA) of 2008 did authorize the Secretary of Treasury to use other than full and open competition for urgent and compelling circumstances (Manuel, 2011). Rendon and Snider (2008) also discuss the government's accountability to public policy. However, not all public policy objectives allow for streamlining of acquisition processes to the government (Rendon and Snider, 2008). For example, conforming to the 1933 Buy America Act might cost the DOD more in cost,

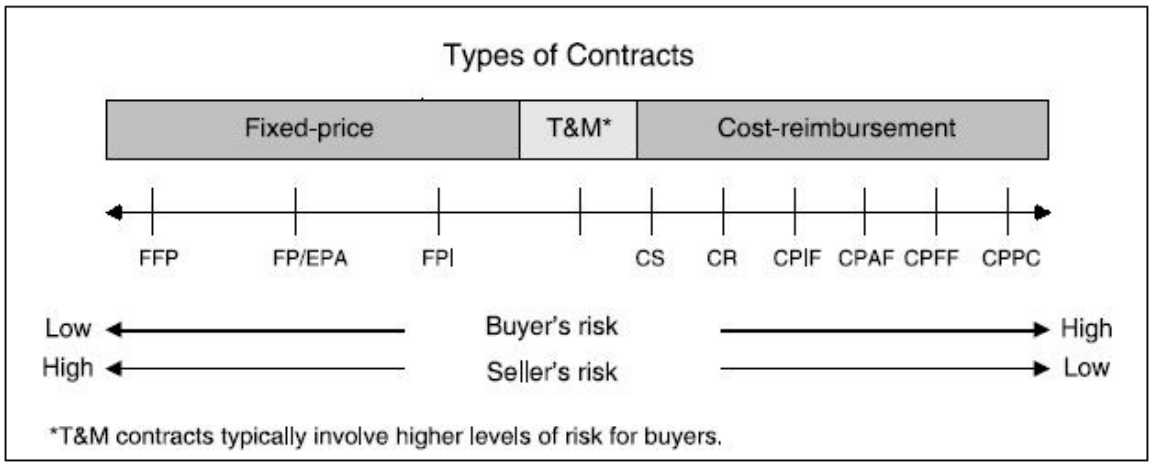
schedule, and performance in the long run instead of procuring from a foreign competitor.

b. Selecting the Appropriate Contract Type

Selecting the appropriate contract type is a critical step in the contract management process because it needs to provide flexibility in acquiring supplies or services. The contract team will decide which contract type and structure to use based on the requirement and the benefits to the government. Contract types include two broad categories, which are fixed-price and cost-reimbursement contracts according to FAR 16.101. Fixed-price contracts have a set price and are defined as a standard business pricing arrangement for contracts. The three types of fixed-price are firm-fixed price (FFP), fixed-price with economic adjustment (FP/EPA), and fixed-price incentive. Fixed price contracts are the preferred contract type for the government because they present the lowest risk and place a majority of risk on the contractor. Cost-reimbursement contracts, on the other hand, are used when the actual costs are unknown and the projects requirements might also be unknown. The six types of cost-reimbursement contracts are cost-sharing (CS), cost-reimbursement (CR), cost-plus-incentive fee (CPIF), cost-plus-award fee (CPAF), cost-plus-fixed fee (CPFF), and cost-plus-a-percentage-of-cost (CPPC). It should be noted that CPPC contracts are not allowed in the federal government. Cost-reimbursement contracts, in general, place much more risk on the government and less on the contractor, as the end product is less defined.

In addition, there are contract instruments that can be used to assist the government in getting the best value. Two of these contract instruments are indefinite delivery indefinite quantity (IDIQ) and blanket purchase agreements (BPA), which can provide the government flexibility on ordering recurring requirements. Figure 5 shows the contract types and risk involved with each type of contract when selecting the appropriate contract type (Garrett, 2010).

Figure 5. Contract Types and Risk



Source: Garrett, G. A. (2010). *World class contracting* (5th ed.). Riverwoods, IL: CCH, p. 127.

c. Establishing Evaluation Criteria

Establishing the evaluation criteria is a critical step in the procurement process because it signals what the most important areas to be graded are and presents a guideline to potential offerors in how the contract will be awarded. Evaluation criteria are important in the following three areas: cost or price evaluation, past performance evaluation, and technical evaluation (FAR 15.304–305). Criteria are usually discussed and defined in objective and threshold values and terms. The performance measures provide the basis for collecting the information to evaluate and answer the contracting team's questions in regards to the requirements. The criteria should also be unambiguous and the objectives should be measurable either qualitatively or quantitatively (DAU, 2014). In a negotiated procurement, the evaluation strategy may decide if lowest price technically acceptable (LPTA) or tradeoff process is in the government's best interest in the selection. In LPTA, the government achieves the best value with the lowest price technically acceptable offer (FAR 15.102-2(a)). The tradeoff process is where the government will consider an award to other than the lowest price offeror or the highest technically rated offeror (FAR 5.101-1(a)). The technical factors measure whether the contractor's proposal will meet the government's requirements (FAR 15.305(3)(i)). A technical risk evaluation will be assessed using a summary, a matrix, or quantitative

rankings along with supporting documentation for each evaluation factor (FAR 15.305(3)(ii)). Establishing appropriate evaluation criteria early in the procurement process allows the contracting team to choose the best value for the government and helps mitigate future protest. The Defense Acquisition University (DAU) BCA guidebook says that evaluation criteria are "the most critical and difficult components of a business case analysis (BCA)" (DAU, 2014). Finally, it is critical to identify and define the appropriate evaluation criteria in order to ensure that the proposals will be graded fairly and meets the government's requirements.

3. Solicitation

Solicitation is also part of the pre-award phase and comes after the completion of the solicitation planning process. In the solicitation process, the contracting officer begins formal interaction with industry by holding a pre-proposal conference and advertising the requirement. The contracting officer can deliver the requirement to industry orally, physically, or electronically using the following procurement documents: the request for proposal (RFP), request for quote (RFQ), invitation for bids (IFB), invitation to bid (ITB), and invitation for negotiations (IFN) (Garrett, 2010). Regardless of the solicitation method, the government should ensure that a high-quality solicitation is released to ensure success. Garrett emphasizes this point: "Better solicitations from the buyer generally result in having better bids, quotes, proposals, or tenders submitted by the seller in a more timely manner. Poorly communicated solicitations often result in delays, confusion, fewer bids or proposals, and lower-quality responses" (Garrett, 2010, p. 24).

a. Pre-Proposal Conference

The pre-proposal conference is an important step in the solicitation process because it serves as a forum for the organization and the offerors to better understand the requirements and capabilities of the acquisition. Pre-proposal conferences provide an early exchange of information amongst industry, the program manager, and the contracting officer, to identify and resolve concerns regarding the acquisition. The main topics discussed with industry at these pre-proposal conferences is the strategy, proposed contract type, terms and conditions, planning schedules to determine the feasibility of

performing the requirements, and the suitability of the proposal instructions and evaluation criteria (FAR 15.201(c)). The pre-proposal conference allows industry the chance to ask questions and make suggestions that can help the government get the best products or services by making revisions or amendments to the solicitation (FAR 15.409 (c)(1)(2)).

b. Advertising Requirements

Advertising requirements are defined in FAR Part 5 and require contracting officers to disseminate the information on the proposed contract in multiple ways depending on the dollar amounts. For contract actions that exceed $25,000, the contracting officer must provide a synopsis of the proposed contract action, solicitations, and associated information using the government point of entry (GPE), which is usually broadcasted using a uniform resource locator (URL) at either the Federal Business Opportunities (FedBizOpps; http://fedbizopps.gov) or the General Services Administration (GSA; http://www.gsa.gov; FAR 5.101(1)). For contracts between $15,000 and $25,000, they can be distributed by displaying them in a public place or by any appropriate electronic means that can be accessed by the general public (FAR 5.101(2)(iii)). The purpose of the GPE is to ensure competition, to broaden industry participation to meet the government's requirements, and to support socio-economic programs and disadvantaged businesses in helping them obtain contracts and subcontracts with the government. Potential contractors in this category might include small businesses, veteran-owned small businesses, service-disabled/veteran-owned small businesses, HUB-Zone small businesses, small disadvantaged businesses, and women-owned small businesses (FAR 5.002(a)(b)(c)).

4. Source Selection

Source selection is a part of the award phase and comes after the completion of the solicitation process. In the source selection process, the government acquisition team methodically evaluates all the submitted proposals and selects an awardee. Communication is conducted with the offerors during the source selection in order to help the government achieve the best value from the submitted proposals. Source

selections are directed by the source selection organization that evaluates the proposals and communicates concerns with the offerors to clarify any misunderstandings about the proposal that might need to be revised.

a. Source Selection Organization

The DOD Source Selection Procedures describe the source selection organization as a cross-functional representative team that includes the Source Selection Authority (SSA), the Source Selection Team (SST), the procuring contracting officer (PCO), the Source Selection Evaluation Board (SSEB), the Source Selection Advisory Council (SSAC), the small business specialist, cost or pricing experts, and legal personnel (OUSD[AT&L], 2011b, p. 2). In the source selection organization, the contracting officer has the SSA authority for most contracts up to $100 million. The SST is a team that is required to perform a source selection when the contract exceeds $100 million. Due to the high-dollar amount, the SSAC also provides assistance to the SSA to ensure appropriate analysis of the evaluation results. The PCO is responsible for the administrative and contract sections of the acquisition, which also entails performing SSA duties. The SSA appoints the SSEB chair members and safeguards the source selection process as directed by FAR 3.104 and DFARS 203.104 (OUSD[AT&L], 2011b, p. 4). The SSEB is a group of government and non-government personnel (if approved) that have great experience in their fields. The SSEB is divided into three main teams, which include the technical team, the past performance team, and the cost and pricing team. These teams assess the proposals and the evaluation criteria to ensure technical feasibility, past performance, and cost price realism to achieve the government's best value in the transaction. The SSAC also consists of senior individuals, team members, and a chair that provide written analysis with recommendations to the SSA as well as comparative analysis of the SSEB evaluation results.

b. Evaluating Proposals

Evaluating proposals is a process where the SSEB scores each proposal against the importance of the evaluation factors and sub-factors of the solicited RFP document. During this process, it is critical that the SSEB assess the appropriate criteria in their

selection, including cost or price evaluation, technical rating evaluation, past performance, and socio-economic factors. FAR 15.4 and the contract pricing guide state that "cost or price to the Government shall be evaluated in every source selection" (OUSD[AT&L], 2011b, p. 14). Depending on the complexity of the source selection, the level of analysis will fluctuate; however, no adjectival ratings shall be used in evaluating cost or price. The PCO will provide a sufficient description of the cost or price evaluation, and the analysis must determine that the cost or price evaluation was fair and reasonable. The PCO must also conduct cost realism analysis on all cost reimbursement contracts. Cost realism analysis should also be conducted on contracts that are competitive, on fixed-price incentive contracts, or on contracts that take extraordinary effort or risk (OUSD[AT&L], 2011b). The technical rating evaluation is a criteria tool that uses a technical risk rating assessment to identify weaknesses that could potentially impact costs, present schedule delays, create performance shortfalls, and necessitate additional government oversight. Past performance is a criteria tool that uses information obtained from sources available to the government, including Past Performance Information Retrieval System (PPIRS), Federal Awardee Performance and Integrity Information System (FAPIIS), Electronic Subcontract Reporting System (eSRS), and other interviews or databases. The last criteria, socio-economic factors evaluation is a tool that considers small business participation as one of the higher factors or sub-factors when evaluating the sole source selection (OUSD[AT&L], 2011b)

c. Clarifications, Communications, Discussions, and Revisions

In the source selection process, FAR Part 15 addresses clarifications, awards without discussions, communications and exchanges with offerors, establishment of the competitive range, limits on exchanges, and proposal revisions. The government uses clarifications when they expect to award a contract without discussions, but they can use rationale to conduct discussions if necessary. Clarifications are limited exchanges between the government and the offeror and allow the offeror to modify only minor clerical errors of their proposal (FAR 15.306(a), 2015). Communications with the offerors before the establishment of the competitive range provide the government with an understanding of the proposals and a reasonable interpretation of the proposal. It also

gives the offeror an opportunity to provide an explanation for adverse past behavior in order to facilitate the government's evaluation process (FAR 15.306(b), 2015). Communications with offerors not in the competitive range provide the government a list of the most highly rated efficient proposals. The contracting officer will then send the offerors a notice that they are no longer eligible for the competitive range and will be eliminated for consideration of an award. The offerors may ask for a debriefing upon being eliminated to give them insight to the reason why they were eliminated (FAR 15.306(c), 2015). Communications with the offerors after the establishment of the competitive range allows the government to conduct negotiations on price, schedule, technical requirements, and contract type. They can also address deficiencies, weaknesses, or other terms of a proposed contract in order to obtain the best value (FAR 15.306(d), 2015). Negotiations that are conducted after the establishment of the competitive range are called discussions if they are in a competitive acquisition (FAR 15.306(d), 2015). The government is not allowed to exchange favors with one vendor, reveal offeror's technical answers, disclose offeror's intellectual property, disclose offeror's price without permission, or disclose the results of the evaluation. The contracting officer may, however, inform offerors that their price is considered too high or too low (FAR 15.306(e), 2015). The contracting officer may request or allow proposed revisions to document agreements during negotiations (FAR 15.307(b), 2015).

5. Contract Administration

Contract administration is a part of the post-award phase and comes after the completion of the source selection process. In the source selection process, the government selects the source and awards the contract to the winners. Contract administration usually starts with a pre-performance conference and sets the stage for monitoring and measuring of the contractor's performance. Contract modifications occur in this process if needed, and the process is finished when the payment or invoice process is completed (Rendon & Snider, 2008).

a. Monitoring and Measuring Performance

Monitoring and measuring a contractor's performance is an important process in contract administration because it gives the government a way to ensure that the procurement objectives are met. During the contract performance period, the SOW becomes the primary document used by the contractor to perform the requirements. The government assigns administrative contracting officers, contracting officer representatives (COR), and evaluators to oversee the contractor's performance. The government uses different evaluators depending on the type of contract such as: quality assurance evaluators (QAE), quality assurance representatives (QAR), or contracting officer's technical representatives (COTR). Rendon and Snider (2008) state, "These technical representatives act as the contracting officer's eyes and ears in terms of ensuring the contractor meets the technical requirements of the contract" (p. 177). Performance management becomes paramount because it allows the government to stay in compliance with cost, schedule, performance, and quality. One quantitative way that performance is measured is by utilizing earned value management (EVM). Earned value management is a tool that the government can use to help identify concerns and estimate the cost and completion date as a result of issues (Rendon & Snider, 2008).

b. Contract Modifications

Contract modifications are changes that are made after both parties sign the contract. FAR 43.103 discusses two types of contract modification changes, which are bilateral and unilateral. Bilateral modifications must be signed by both parties and are used to negotiate equitable adjustments, definitize letter contracts, and modify the terms of a contract. Unilateral modifications are signed only by the government and consist of administrative changes, changes in orders, changes authorized other than change clauses, and termination of notices (FAR 43.103, 2015).

c. Payment and Invoices

Payments are made to the contractor over the course of work being completed, and the invoices are submitted to the government for supplies and services provided. Payments can be made in a single lump sum payment for performance, as in a fixed-

priced contract, or spread throughout the course of the contract, as in a cost-reimbursement contract (Rendon & Snider, 2008). The Material Inspection and Receiving Report (MIRR) or DD250 is the document that the government requires for invoice acceptance. The contractor can physically submit it or electronically file it using the Wide Area Workflow (WAWF; DFARS 252.232-7003, 2015). These physical and electronic documents are used to give the government a tool to authenticate the submission and pay the contractor. The COR is the primary member in this process who acknowledges the delivery of supplies or services and certifies their condition.

6. Contract Closeout

Contract closeout is a part of the post-award phase and comes after the completion of the contract administration process. In the contract closeout process, the government validates that all administrative matters are concluded in the contract. Government contracts must eventually be closed out and this happens in one of three ways: successful completion, termination for convenience by the government, and termination for default.

a. Successful Completion

The contract closeout process occurs when the contract is a “physically completed contract,” meaning that all supplies and services have been received, all significant issues have been addressed, all costs have been paid for, and all audits have been resolved (FAR 4.804, 2015). Once all these steps have been verified, the contracting officer can initiate the closeout process and store or retain the files for one to six years depending on the content of the contract and in compliance with FAR 4.805(a)(b). At this point, any remaining money on the contract can be de-obligated by the government and returned to the proper agency (FAR 43.103-5, 2015).

b. Termination

Contracts that are terminated before their completion date are either terminated for convenience (T4C) by the government or terminated for default (T4D). A termination for convenience by the government is usually due to the organization's requirements,

budget issues, or technology issues. In this case, the government pays the contractor for cost incurred, work completed, or goods delivered and documents the file that the contractor's performance was satisfactory. A termination for default by the government is usually due to the contractor's inability to perform services or failure to deliver supplies or services in accordance with the contract. A termination for default may reflect negatively on the contractor and will be recorded in the government past performance measurement systems. FAR Part 49 describes the penalties that a contractor may incur in a T4D, which include negative information recorded in past performance records, financial withholdings, liquidated damages, and increased construction bond premiums (FAR 49.4, 2015).

Contracts will be successful when they are managed by competent, capable, and trained people that pay dutiful attention to the contract management processes. The contract management process can only be successful if the organization emphasizes strong internal controls. The next section provides a thorough explanation of the internal control components.

F. INTERNAL CONTROL COMPONENTS

The federal government is frequently looking for ways to improve accountability to achieve an organization's mission. To improve accountability, the organization must implement an effective internal control system (Government Accountability Office, 2014). In the DOD procurement environment, effective internal controls are required by system and business process managers in procurement in order to improve accountability, transparency, traceability, and data integrity (Office of the Secretary of Defense, 2011).

The concepts of internal control under the COSO are widely used in the world, and the federal government adapts these concepts for use in government. COSO published the *Internal Control-Integrated Framework* (COSO, 2013), which defines internal control as "a process effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance" (COSO, 2013, p. 3). COSO also provides the objectives of internal control, the five components of internal control,

and seventeen principles related to the five components. The concepts of the integrated framework of internal control are discussed in the following sections.

1. Key Concepts of COSO's Internal Control Framework

The definition of COSO's internal control encompasses fundamental concepts. These key concepts of internal control are as follows:

- The accomplishment of objectives in internal control is in one or more categories: operations, reporting, and compliance (COSO, 2013).
- Internal control is a process that includes the plans, methods, policies, and procedures used to accomplish the mission, strategic plan, goals, and objectives of the entity (COSO, 2013; GAO, 2014).
- Internal control requires a continuous effort, effected not only by policy, procedure, systems, and forms, but also by people at every level of an organization (COSO, 2013; GAO, 2014).
- An effective internal control system is able to provide reasonable assurance, but not absolute assurance, that the organization's objectives will be met (COSO, 2013; GAO, 2014).
- Internal control is adaptable to an individual organization and should be flexible to fit the needs of the organization (COSO, 2013).

2. Objectives of COSO's Internal Control Framework

COSO addresses three categories of objectives, which include operational objectives, reporting objectives, and compliance objectives. These objectives are distinct but have overlapping categories in each area (COSO, 2013).

a. Operational Objectives

Operational objectives result in greater efficiency and effectiveness in the organization's operations (COSO, 2013). Operational objectives may be connected to a strategic plan. A strategic plan uses effective and efficient operations for an organization. Effective operations generate the expected outcomes by operational processes, while efficient operations generate expected outcomes by means of minimizing the waste of

resources (GAO, 2014). The effectiveness of internal control is determined by a commitment to integrity and ethical values. Management is expected to establish values and expectations regarding proper behavior. Also, the tone at the top influences the effectiveness of internal control. An organization's commitment to integrity and ethical values is included in its standards of conduct and is communicated through directives, actions, and behavior. An organization also needs to establish processes to maintain standards of conduct, ensuring that deviations are identified and fixed in a timely and consistent manner (Whittington & Pany, 2014).

b. Reporting Objectives

Reporting objectives involve internal and external, and financial and non-financial report preparation for use within the organization or by its stakeholders. These objectives covers reliability, timeliness, transparency, or other terms as set forth by regulators, recognized standards, or the organization's policies (COSO, 2013; GAO, 2014).

c. Compliance Objectives

Compliance objectives relate to obeying the laws and regulations that an organization has to follow (COSO, 2013). In the government sector, objectives focus on compliance with applicable laws and regulations, which are important core values to their organization. Management should oversee compliance objectives for the organization to determine which controls are crucial to design, implement, and monitor for the organization to achieve its objectives effectively (GAO, 2014). Furthermore, the Office of Management and Budget (OMB) provide guidance for better government agencies.

3. Five COSO Internal Control Components

The COSO provides five components designed to be executed in an integrated way (COSO, 2013; GAO, 2014). The five internal components are described in the following sections.

a. Control Environment

The COSO defines control environment as "the set of standards, processes, and structures that provide the basis for carrying out internal control across the organization" (COSO, 2013, p. 4). It can be viewed as the basis for the other components of internal control. This component influences the total quality of internal control by maintaining an environment through the organization that sets the attitude for ethical behavior within the organization (GAO, 2014). Principles 1, 2, 3, 4, and 5 are associated with Control Environment, which will be discussed later (Figure 6).

b. Risk Assessment

An organization generally faces various risks from internal and external sources. According to the COSO, risk assessment is defined as "a dynamic and iterative process for identifying and assessing risks to the achievement of objectives" (COSO, 2013, p.4). Risk assessment should include determining how risks may be managed. In order to perform effective risk assessment, management should establish objectives for each level of the organization prior to risk assessment. Also, management should assess the risks facing the organization and identify objectives within operations, reporting, and compliance. Management should also consider the viability of the objectives for the organization. Moreover, management should consider possible changes in the internal and external environment that could impact the organization's internal control effectiveness (COSO, 2013; GAO, 2014). Assessing risk consists of evaluating the likelihood of occurrence of risks and the potential impact of risks. It also includes consideration of the number of occurrences and the duration of the impact of the risks. Through the risk assessment, management can identify significant risks that need to be addressed (Whittington & Pany, 2014). Principles 6, 7, 8, and 9 are associated with Risk Assessment, which will be discussed later (see Figure 6).

c. Control Activities

Control activities are "the actions established through policies and procedures that help ensure that management's directives to mitigate risks to the achievement of objectives are carried out" (COSO, 2013, p. 4). Control activities are performed

throughout organizations at all levels and at various functions. Control activities may be preventive in nature or may be detective in nature. Control activities may also involve various manuals and actions required to check the accuracy, completeness, validity, and authorization of transactions. Also, segregation of duties is an effective means of control activities. If segregation of duties is not practical, management should select and develop alternative control activities to reduce the risk of fraud (COSO, 2013; GAO, 2014). Also, the Office of Management and Budget (OMB), which contains an implementation guide for the federal government, shows examples of control activities, such as proper segregation of duties, physical controls over assets, proper authorization, and appropriate documentation and access to that documentation (OMB, 2004). Principles 10, 11, and 12 are associated with Control Activities, which will be discussed later (see Figure 6).

d. Information and Communication

Information is needed at various levels of an organization to support the internal control system. Effective information and communication are crucial for an organization to achieve its objectives (GAO, 2014). Proper communication helps people to understand their roles and responsibilities in the organization. Also, open communication networks are important to establish the proper functions of an information system. With proper communication, people can understand how their activities connect to the work of others (Whittington & Pany, 2014). Therefore, management should obtain relevant and quality information from internal as well as external sources for supporting the function of other internal control components. Communication is the constant process of providing, sharing, and obtaining essential information (COSO, 2013). Principles 13, 14, and 15 are associated with Information and Communication, which will be discussed later (see Figure 6).

e. Monitoring Activities

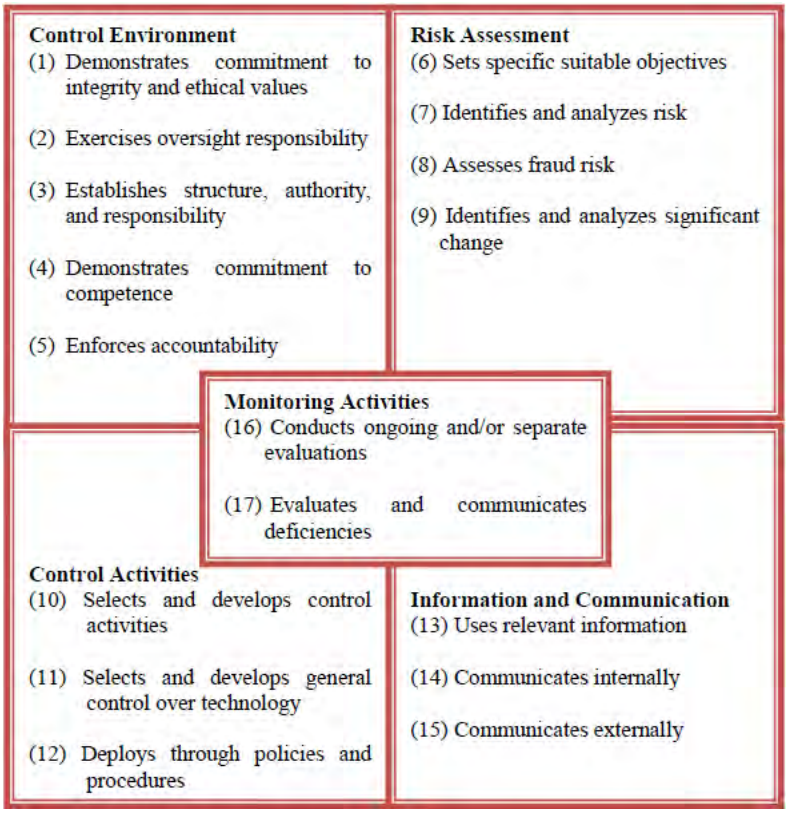
Monitoring activities is “a process to assess the quality of internal control performance over time” (Whittington & Pany, 2014). Monitoring activities are crucial to making sure that internal controls remain effective through evolving objectives, environments, laws, resources, and risks. Separate monitoring evaluations are used to

assess the quality of internal controls. Ongoing evaluations are implemented into the operation processes at various levels of the organization and provide timely information. Separate evaluations are performed on a non-routine basis and support the assessment of risks and effectiveness of ongoing evaluations. The findings from monitoring activities are evaluated against the organization's internal control policies and the deficiencies are communicated to management or a supervisor. Corrective actions are essential to control activities in order to accomplish the organization's objectives (COSO, 2013; GAO, 2014). Principles 16 and 17 are associated with Monitoring Activities, which will be discussed later (see Figure 6).

4. Fundamental Principles Supporting Internal Control Components

As previously discussed, the 17 principles support the effective design, implementation, and operation of related components in order to establish an effective internal control system (GAO, 2014). Generally, all components and principles are relevant and integrated to establishing an effective internal control system. Figure 6 is a summary of the internal control framework from the discussion of COSO's five internal control components and 17 principles (COSO, 2013; Tan, 2013). These principles are used to evaluate whether the five components are present and functioning effectively. The attributes of each of the 17 principles are discussed in the following sections.

Figure 6. COSO's 17 Fundamental Principles



Source: Tan, L. H. J. (2013). *An analysis of internal controls and procurement fraud deterrence* (Master's thesis, Naval Postgraduate School). Retrieved from http://calhoun.nps.edu/bitstream/handle/10945/39022/13Dec_Tan_Li_Huang_Joyce.pdf?sequence=1

a. Principle 1: Demonstrates Integrity and Ethical Values

The effectiveness of internal control is influenced by a commitment to integrity and ethical values as demonstrated by an oversight body and by management, through their directives, appropriate attitudes, and behavior. The oversight body and management need to demonstrate the organization's values, philosophy, and operating style (GAO, 2014). Setting a tone of integrity and ethical behavior at the top is essential for effective internal controls. Management also sets the standard of conduct by communicating their expectations of ethical values. An organization should establish procedures to evaluate its works against the organization's anticipated standard of conduct and to ensure that deviations are dealt with on a timely basis (GAO, 2014).

b. Principle 2: Exercises Oversight Responsibility

The oversight body, such as the board of directors and audit committee, should be independent from management and appropriately oversee the organization's development and implementation of internal controls. In selecting members for an oversight body, it is important to consider the skills, knowledge, relevant expertise, number of members, and possible independence required to meet the oversight responsibilities. The oversight body should provide input for remediation of deficiencies so that the organization has guidance for correcting these deficiencies (Whittington & Pany, 2014; GAO, 2014).

c. Principle 3: Establishes Structure, Authority, and Responsibility

Management should establish an organizational structure, delegate authority, and assign responsibility to accomplish the organization's objectives. Well-designed organizational structures provide a foundation that enables the entity to plan, direct, control, and assess operations. Personnel in an organization need to know their responsibilities and the organization's rules and regulations. Hence, management should develop descriptions of its internal control system and clearly define authority and responsibility in the organization so that they can improve the control environment. Also, establishing documentation with regards to policies may foster appropriate business operation practices (Whittington & Pany, 2014; GAO, 2014).

d. Principle 4: Demonstrates Commitment to Competence

Ultimately, the effectiveness of internal controls is influenced by the characteristics of an individual organization (Whittington & Pany, 2014). Therefore, management should establish expectations of competence for important roles to support achieving the organization's objectives. Management's policies and practices for recruiting, developing, and retaining competent personnel have a significant effect on achieving the organization's objectives. For example, management could describe the organization's commitment to hiring competent and trustworthy people through establishing standards for hiring competent individuals who have the necessary education, experience, and certification (GAO, 2014).

e. Principle 5: Enforces Accountability

The organization needs to assess performance and hold individuals within the organization accountable. Accountability is determined by management's tone at the top, commitment to principles of integrity and ethical values, establishment of organizational structure, and expectations of competence. Management should hold individuals accountable for performing their internal control responsibilities. Also, the oversight body, such as the board of directors and audit committee, should hold management accountable as a whole for its internal control responsibilities (GAO, 2014).

f. Principle 6: Specifies Suitable Objectives

Management should define specific and measurable objectives to enable the identification of risks and define risk tolerances. Clearly defining objectives can improve an organization's progress toward achieving the organization's objectives. Defining risk tolerances are important performance measures that are suitable for the design of an internal control system (GAO, 2014).

g. Principle 7: Identifies and Analyzes Risk

Management should identify, analyze risks, and then react to those risks connected with accomplishing the organization's objectives. Risk assessment is "the identification and analysis of risks" (GAO, 2014, p. 37) associated with accomplishing the defined goals in order to form a foundation for planning risk responses (GAO, 2014).

h. Principle 8: Assesses Fraud Risk

Management should take fraud into account when identifying, analyzing, and responding to other risks. Considering the types of fraud or misconduct, such as waste and abuse, can provide a basis for identifying fraud risks. Also, fraud risk factors, such as incentive, pressure, opportunity, or rationalization should be considered. Moreover, management should analyze and respond to potential identified fraud risks in order to mitigate possible problems effectively (GAO, 2014).

i. Principle 9: Identifies and Analyzes Significant Change

Management should identify, analyze, and respond to developments and shifts that have the potential to influence the internal control system. Significant changes that may be critical to an effective internal control are frequently overlooked. Also, analyzing the effect of identified changes and revising the internal control system in a timely manner is crucial to maintaining its effectiveness (GAO, 2014).

j. Principle 10: Selects and Develops Control Activities

Management should design control activities for achieving objectives and responding to risks. Control activities will help management in fulfilling its responsibilities to properly respond to identified risks in the internal control system. Also, designing control activities at various levels in the organization is important to meeting the organization's objectives and addressing related risks. Furthermore, segregating duties in designing control activities is crucial for appropriate internal control (GAO, 2014).

k. Principle 11: Selects and Develops General Control Over Technology

Management should consider designing the organization's information system and associated control activities so that they can accomplish objectives and respond to risks. Information systems have the two forms of control activities. One is a general control activity. Another is an application control activity. General control activities are the policies, guidance, and procedures applying to entirely or a large part of the information system. On the other hand, application control activities are directly integrated into applications of computers to accomplish validity, comprehensiveness, accurateness, and secrecy of data and transactions during process of application (GAO, 2014).

l. Principle 12: Deploys through Policies and Procedures

Management needs to implement control activities through policies and procedures. It is important to document the policies and objectives for each area of responsibility in their organization. Each area determines the policies related to the

objectives and risks for the operational process. Management should periodically review policies and procedures to maintain relevant and effective functions in achieving the organization's objectives or finding related risks (GAO, 2014).

m. Principle 13: Uses Relevant Information

Management needs to use relevant information to achieve the organization's objectives. Considering information requirements is important for both internal and external users. Therefore, it is crucial to identify information requirements with the processes of an effective internal control. When obtaining data, management should be concerned about the reliability of the information. Management needs to assess both internal and external sources of data for reliability so that these data can be used for effective monitoring (GAO, 2014).

n. Principle 14: Communicates Internally

It is important for management to communicate internally with the necessary quality information to achieve the organization's objectives. Quality information should be interconnected toward up, down, around, and across lines of reporting to entire levels of the organization. Management should communicate throughout the organization to enable individuals to perform necessary roles in accomplishing objectives, addressing risks, and having an effective internal control system. Also, management should select appropriate methods to communicate internally, such as written documents and face-to-face meetings so that individuals can communicate appropriate information (GAO, 2014).

o. Principle 15: Communicates Externally

It is also important for management to communicate externally with the necessary quality information to achieve the organization's objectives. Management should obtain quality information from external organization by using created lines of reporting. Reporting lines enable management to help external parties achieve the organization's objectives and address the related risks. Also, management should select appropriate methods to communicate externally, such as written documents and face-to-face meetings

so that the organization will be able to obtain the appropriate methods to communicate appropriate and quality information timely (GAO, 2014).

p. Principle 16: Conducts Ongoing and/or Separate Evaluations

Management should establish and operate monitoring activities to monitor the internal control system and evaluate the results. To identify the issues and deficiencies, management should establish a baseline for monitoring and evaluating the internal control system. Also, it is important to conduct monitoring through ongoing assessments of the design and operating effectiveness of internal controls with separate evaluations. Ongoing monitoring should be a part of the organization's operations, should be performed constantly, and should be responsive to changing situations. Separate evaluations conducted periodically can deliver feedback on the effective constant monitoring. Management should assess and make documents of the results of both separate evaluations and constant monitoring in order to recognize the issues within the internal control system (GAO, 2014).

q. Principle 17: Evaluates and Communicates Deficiencies

Management needs to remediate identified deficiencies of internal control in a timely manner. In order to remediate the deficiencies, individuals should report internal control issues when they identify the issues while performing their duties. Also, management should assess and publish the document of the internal control problems and decide to conduct proper correction for internal control deficiencies Moreover, management should make appropriate correction to amend the internal control deficiencies timely (GAO, 2014).

G. SUMMARY

In this chapter, a review of the literature related to the DOD contracting environment and current problems and DOD initiatives in response to the current problems were discussed. Next, the importance of the auditability theory along with auditability triangle was addressed. In addition, the six processes of the contract management were discussed. These phases provide the guidelines for the personnel that

serve in contracting organizations to conduct procurement of public goods and services in a cost-effective and efficient way. Finally, the five COSO internal control components and the associated 17 principles were addressed. An effective internal control system needs each of the five components and related principles to exist and function in an integrated manner. The next chapter, Chapter III, includes a discussion of the methodology used in this research.

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III. METHODOLOGY

A. INTRODUCTION

This chapter discusses the methodology used in this research. First, the source of data collected is discussed. Then, the development of the assessment tool is provided. Finally, a discussion of how the data was analyzed is provided.

B. SOURCE OF DATA COLLECTED

The data collected came from the Department of Defense Inspector General (DODIG) audit reports related to the DOD's acquisition and contract administration. The DODIG is an independent agency that advises the Secretary of Defense and Congress by providing relevant and timely oversight of the DOD and reports to the public. In addition, the DODIG supports the warfighter by promoting accountability, integrity, and efficiency (DODIG, n.d.).

The data used in this research was collected from the DODIG's (2009) *Summary of DOD Office of Inspector General Audits of Acquisition and Contract Administration*, which consisted of 128 reports from FY 2003 to FY 2008 and 21 individual audit reports of acquisition processes and contract management from FY 2009 to FY 2010. The DODIG reports and publications are located at www.dodig.mil.

C. DEVELOPMENT OF ASSESSMENT TOOL

An excel spreadsheet was created as an assessment tool to facilitate the analysis of the DODIG reports. This assessment tool was used to analyze the DODIG reported deficiencies concerning contract management processes and assess the internal control components. The assessment tool was used to categorize several factors in each report to find areas of concern. Then the descriptive data was broken down into categories of deficiencies to assess the internal controls within contract management processes. The assessment tool consists of the report numbers, type of DOD service department, contract management processes, and internal control components. The results are displayed in a graph and table outlay.

D. DATA ANALYSIS

The results of each DOD contract management deficiency were analyzed according to the contract management processes and internal control components. The assessment tool reflected the contract management processes and internal control components associated with each DODIG reported deficiency. These results were then analyzed for patterns and differences. The implications of the results were used to develop recommendations to help influence changes in DOD contract management processes and internal controls.

E. SUMMARY

This chapter presented the methodology for this research, discussed the source of the data, described the development of the assessment tool, and explained how the data was analyzed. The next chapter, Chapter IV, provides the research findings, the analysis of the findings, the implications of the findings, and recommendations for the DOD on improving contract management processes and internal controls.

IV. FINDINGS, IMPLICATIONS, AND RECOMMENDATIONS

A. INTRODUCTION

This chapter will discuss the findings, implications, and recommendations resulting from the analysis of this research. The findings will be reviewed in regards to the results of the analysis conducted on DODIG reports. Specifically addressed will be the number of deficiencies within the contract management processes and weaknesses within the internal control components of the DOD. Next, the implications of these findings based on this analysis of contract management processes deficiencies and internal control components weaknesses will be discussed. Finally, recommendations will be made based on the implications of these findings of contract management process deficiencies and internal control components weaknesses.

B. FINDINGS

The DODIG report identified several DOD deficiencies and weaknesses in each individual report. Therefore, each stated deficiency or weakness was counted separately to develop an analytical presentation of the breakdown of deficiencies and weaknesses in order to help make recommendations to the DOD. The following Tables and Figures reflect the results of the analysis of 149 DODIG reports between 2003 and 2010. The numbers of DODIG reports analyzed were 38 in Army, 37 in Air Force, 18 in Navy, 3 in Joint, 53 in DOD, respectively (DODIG, 2009).

1. Contract Management Processes Deficiencies

The deficiencies of the contract management processes were identified using 149 DODIG reports from 2003 to 2010. Table 1 shows the results of the analysis of these reports presented by the number of deficiencies found in the six contract management processes by DOD service departments. The analysis of the DODIG reports were categorized by Army, Air Force, Navy, Joint, DOD Other Agencies, and Overall, as shown in Table 1. It should also be noted that only three DODIG reports referred to a joint service department when reviewing the overall data. Therefore the joint service

department was not included in the write up. Also, the DOD Other Agencies comprises organizations run mostly by civilian DOD personnel, sometimes with a few military members from other departments, but not enough to identify them as a joint department.

Table 1. Contract Management Processes Number of Deficiencies by DOD Departments

Contract Management Key Process Area	Key Practice Activities	ARMY	AIR FORCE	NAVY	JOINT	DOD OTHER AGENCIES	OVERALL
1	**Procurement Planning**						
PP-1	Requirements Analysis	15	5	4	1	3	28
PP-2	Required Sources of Supply and Services	4	1	0	0	5	10
PP-3	Acquisition Planning	12	15	10	2	17	56
PP-4	Market Research	1	5	1	0	7	14
PP-5	Determine Competition Environment	4	4	2	0	11	21
	Sub Total of Procurement Planning	**36**	**30**	**17**	**3**	**43**	**129**
2	**Solicitation Planning**						
SP-1	Document Competition Environment	0	0	0	0	1	1
SP-2	Determine Procurement Method	2	3	3	0	4	12
SP-3	Determine Evaluation Strategy	3	7	2	0	8	20
SP-4	Develop Solicitation Documents	6	2	1	0	2	11
SP-5	Determine Contract Type/ Incentive	7	9	5	1	11	33
SP-6	Determine Terms and Conditions	0	3	0	0	3	6
	Sub Total of Solicitation Planning	**18**	**24**	**11**	**1**	**29**	**83**
3	**Solicitation**						
S-1	Advertise Procurement Activities	0	2	0	0	1	3
S-2	Conduct Conference	1	1	0	0	0	2
S-3	Amend solicitation documents as required	1	4	0	0	2	7
	Sub Total of Solicitation	**2**	**7**	**0**	**0**	**3**	**12**
4	**Source Selection**						
SS-1	Evaluate Proposals	2	6	1	0	3	12
SS -2	Apply Evaluation Criteria	3	7	1	0	4	15
SS -3	Negotiate Contract Terms and Conditions	4	8	2	0	11	25
SS -4	Contractor Responsibility Standards	2	4	1	0	5	12
SS -5	Select contractor Manage Protests, Disputes and Appeals	0	0	0	0	0	0
SS -6	Manage Protests, Disputes and Appeals	0	0	0	0	0	0
	Sub Total of Source Selection	**11**	**25**	**5**	**0**	**23**	**64**

Contract Management Key Process Area	Key Practice Activities	ARMY	AIR FORCE	NAVY	JOINT	DOD OTHER AGENCIES	OVERALL
5	**Contract Administration**						
CA-1	Conduct conferences	1	0	0	0	2	3
CA-2	Manage contract change process	3	3	1	0	3	10
CA-3	Monitor contractor's management of subcontracting	1	2	2	0	1	6
CA-4	Manage government furnished property	3	1	0	1	2	7
CA-5	Monitor and measure contractor performance	13	11	9	0	17	50
CA-6	Manage Transportation Issues	1	0	0	0	0	1
CA-7	Manage Value Engineering Issues	0	0	0	0	0	0
CA-8	Manage contractor payment process	8	7	5	2	15	37
CA-9	Manage patents, data, copyright, bonds, insurance, taxes	0	0	0	0	1	1
CA-10	Manage Protests, Disputes and Appeals	0	0	0	0	0	0
CA-11	Comply with terms and conditions	7	18	6	2	17	50
	Sub Total of Contract Administration	**37**	**42**	**23**	**5**	**58**	**165**
6	**Contract Closeout**						
CCO-1	Verify contract completion	0	2	0	0	1	3
CCO-2	Verify contractor compliance	2	1	1	0	1	5
CCO-3	Ensure contract completion documentation	1	0	0	0	0	1
CCO-4	Make final payment	0	0	0	0	2	2
CCO-5	Document lessons learned/ best practices	0	0	0	0	1	1
CCO-6	Process contract terminations, if applicable	1	0	0	0	1	2
CCO-7	Dispose of buyer-furnished property and equipment	0	0	0	0	0	0
CCO-8	Process contract closeout procedures	0	0	0	0	0	0
	Sub Total of Contract Closeout	**4**	**3**	**1**	**0**	**6**	**14**
	TOTAL OF ALL DEFICIENCIES	**108**	**131**	**57**	**9**	**162**	**467**

The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm

Table 1 presents the number of deficiencies that were identified after analysis of the DODIG reports. The deficiencies occurred within the key process areas of Procurement Planning, Solicitation Planning, Solicitation, Source Selection, Contract Administration, and Contract Closeout. The deficiencies within each of the key process areas occurred 129 times in Procurement Planning, 83 times in Solicitation Planning, 12 times in Solicitation, 64 times in Source Selection, 165 times in Contract Administration,

14 times in Contract Closeout. The highest deficiencies were in Contract Administration (165), Procurement Planning (129), and Solicitation Planning (83).

The highest deficiencies that occurred within each key practice activity was 56 times in Acquisition planning (PP-3), 50 times in Monitor and measure contractor performance (CA-5), 50 times in Comply with terms and conditions (CA-11), 37 times in Manage contractor payment process (CA-8), and 33 times in Determine Contract Type/ Incentive (SP-5). Table 2 presents the number of deficiencies by service department shown as percentages that were identified based on analysis of the DODIG reports.

Table 2. Contract Management Processes Number of Deficiencies Shown as Percentages by DOD Departments

Contract Management Key Process Area	Key Practice Activities	ARMY	AIR FORCE	NAVY	JOINT	DOD OTHER AGENCIES	OVERALL
1	**Procurement Planning**						
PP-1	Requirements Analysis	13.9%	3.8%	7.0%	11.1%	1.9%	6.0%
PP-2	Required Sources of Supply and Services	3.7%	0.8%	0.0%	0.0%	3.1%	2.1%
PP-3	Acquisition Planning	11.1%	11.5%	17.5%	22.2%	10.5%	12.0%
PP-4	Market Research	0.9%	3.8%	1.8%	0.0%	4.3%	3.0%
PP-5	Determine Competition Environment	3.7%	3.1%	3.5%	0.0%	6.8%	4.5%
	Sub Total of Procurement Planning	**33.3%**	**22.9%**	**29.8%**	**33.3%**	**26.5%**	**27.6%**
2	**Solicitation Planning**						
SP-1	Document Competition Environment	0.0%	0.0%	0.0%	0.0%	0.6%	0.2%
SP-2	Determine Procurement Method	1.9%	2.3%	5.3%	0.0%	2.5%	2.6%
SP-3	Determine Evaluation Strategy	2.8%	5.3%	3.5%	0.0%	4.9%	4.3%
SP-4	Develop Solicitation Documents	5.6%	1.5%	1.8%	0.0%	1.2%	2.4%
SP-5	Determine Contract Type/ Incentive	6.5%	6.9%	8.8%	11.1%	6.8%	7.1%
SP-6	Determine Terms and Conditions	0.0%	2.3%	0.0%	0.0%	1.9%	1.3%
	Sub Total of Solicitation Planning	**16.7%**	**18.3%**	**19.3%**	**11.1%**	**17.9%**	**17.8%**
3	**Solicitation**						
S-1	Advertise Procurement Activities	0.0%	1.5%	0.0%	0.0%	0.6%	0.6%
S-2	Conduct Conference	0.9%	0.8%	0.0%	0.0%	0.0%	0.4%
S-3	Amend solicitation documents as required	0.9%	3.1%	0.0%	0.0%	1.2%	1.5%
	Sub Total of Solicitation	**1.9%**	**5.3%**	**0.0%**	**0.0%**	**1.9%**	**2.6%**

Contract Management Key Process Area	Key Practice Activities	ARMY	AIR FORCE	NAVY	JOINT	DOD OTHER AGENCIES	OVERALL
4	**Source Selection**						
SS-1	Evaluate Proposals	1.9%	4.6%	1.8%	0.0%	1.9%	2.6%
SS -2	Apply Evaluation Criteria	2.8%	5.3%	1.8%	0.0%	2.5%	3.2%
SS -3	Negotiate Contract Terms and Conditions	3.7%	6.1%	3.5%	0.0%	6.8%	5.4%
SS -4	Contractor Responsibility Standards	1.9%	3.1%	1.8%	0.0%	3.1%	2.6%
SS -5	Select contractor Manage Protests, Disputes and Appeals	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SS -6	Manage Protests, Disputes and Appeals	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Sub Total of Source Selection	**10.2%**	**19.1%**	**8.8%**	**0.0%**	**14.2%**	**13.7%**
5	**Contract Administration**						
CA-1	Conduct conferences	0.9%	0.0%	0.0%	0.0%	1.2%	0.6%
CA-2	Manage contract change process	2.8%	2.3%	1.8%	0.0%	1.9%	2.1%
CA-3	Monitor contractor's management of subcontracting	0.9%	1.5%	3.5%	0.0%	0.6%	1.3%
CA-4	Manage government furnished property	2.8%	0.8%	0.0%	11.1%	1.2%	1.5%
CA-5	Monitor and measure contractor performance	12.0%	8.4%	15.8%	0.0%	10.5%	10.7%
CA-6	Manage Transportation Issues	0.9%	0.0%	0.0%	0.0%	0.0%	0.2%
CA-7	Manage Value Engineering Issues	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CA-8	Manage contractor payment process	7.4%	5.3%	8.8%	22.2%	9.3%	7.9%
CA-9	Manage patents, data, copyright, bonds, insurance, taxes	0.0%	0.0%	0.0%	0.0%	0.6%	0.2%
CA-10	Manage Protests, Disputes and Appeals	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CA-11	Comply with terms and conditions	6.5%	13.7%	10.5%	22.2%	10.5%	10.7%
	Sub Total of Contract Administration	**34.3%**	**32.1%**	**40.4%**	**55.6%**	**35.8%**	**35.3%**
6	**Contract Closeout**						
CCO-1	Verify contract completion	0.0%	1.5%	0.0%	0.0%	0.6%	0.6%
CCO-2	Verify contractor compliance	1.9%	0.8%	1.8%	0.0%	0.6%	1.1%
CCO-3	Ensure contract completion documentation	0.9%	0.0%	0.0%	0.0%	0.0%	0.2%
CCO-4	Make final payment	0.0%	0.0%	0.0%	0.0%	1.2%	0.4%
CCO-5	Document lessons learned/ best practices	0.0%	0.0%	0.0%	0.0%	0.6%	0.2%
CCO-6	Process contract terminations, if applicable	0.8%	0.0%	0.0%	0.0%	0.6%	0.4%
CCO-7	Dispose of buyer-furnished property and equipment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CCO-8	Process contract closeout procedures	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Sub Total of Contract Closeout	**3.7%**	**2.3%**	**1.8%**	**0.0%**	**3.7%**	**3.0%**
	TOTAL OF ALL DEFICIENCIES	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

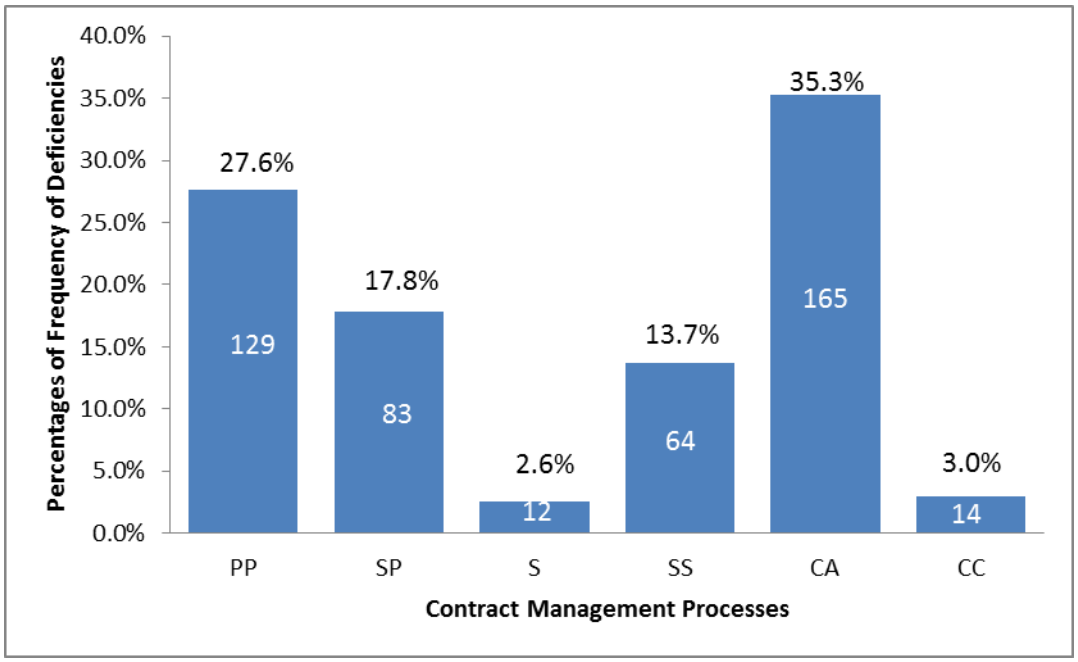
The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm.

Overall, the deficiencies occurred within the key process areas of Procurement Planning, Solicitation Planning, Solicitation, Source Selection, Contract Administration, and Contract Closeout. Overall, the deficiencies that occurred within each key process area are 27.6% in Procurement Planning, 17.8% in Solicitation Planning, 2.6% in Solicitation, 13.7% in Source Selection, 35.3% in Contract Administration, and 3.0% in Contract Closeout. Overall, the analysis among services indicated the highest percentages of deficiencies that occurred within each key process areas were in Contract Administration (35.3%), Procurement Planning (27.6%), and Solicitation Planning (17.8%).

When analyzed by service department and by key process areas, of the total Army deficiencies, 34.3% were identified in Contract Administration, 33.3% were identified in Procurement Planning, and 16.7% were identified in Solicitation Planning (Table 2). Of the total Air Force deficiencies, 32.1% were identified in Contract Administration, 22.9% were identified in Procurement Planning, and 19.1% were identified in Source Selection (Table 2). Of the total Navy deficiencies, 40.4% were identified in Contract Administration, 33.3% were identified in Procurement Planning, and 19.3% were identified in Solicitation Planning (Table 2). Of the total DOD Other Agencies deficiencies, 35.8% were identified in Contract Administration, 26.5% were identified in Procurement Planning, and 17.9% were identified in Solicitation Planning (Table 2).

As Figure 7 shows, overall, the most frequently occurring deficiencies in the contract management processes were identified in Contract Administration (CA) (35.3%). The second most frequently occurring deficiencies were identified in Procurement Planning (PP) (27.6%). The third most frequently occurring deficiencies were identified in Solicitation Planning (SP) (17.8%).

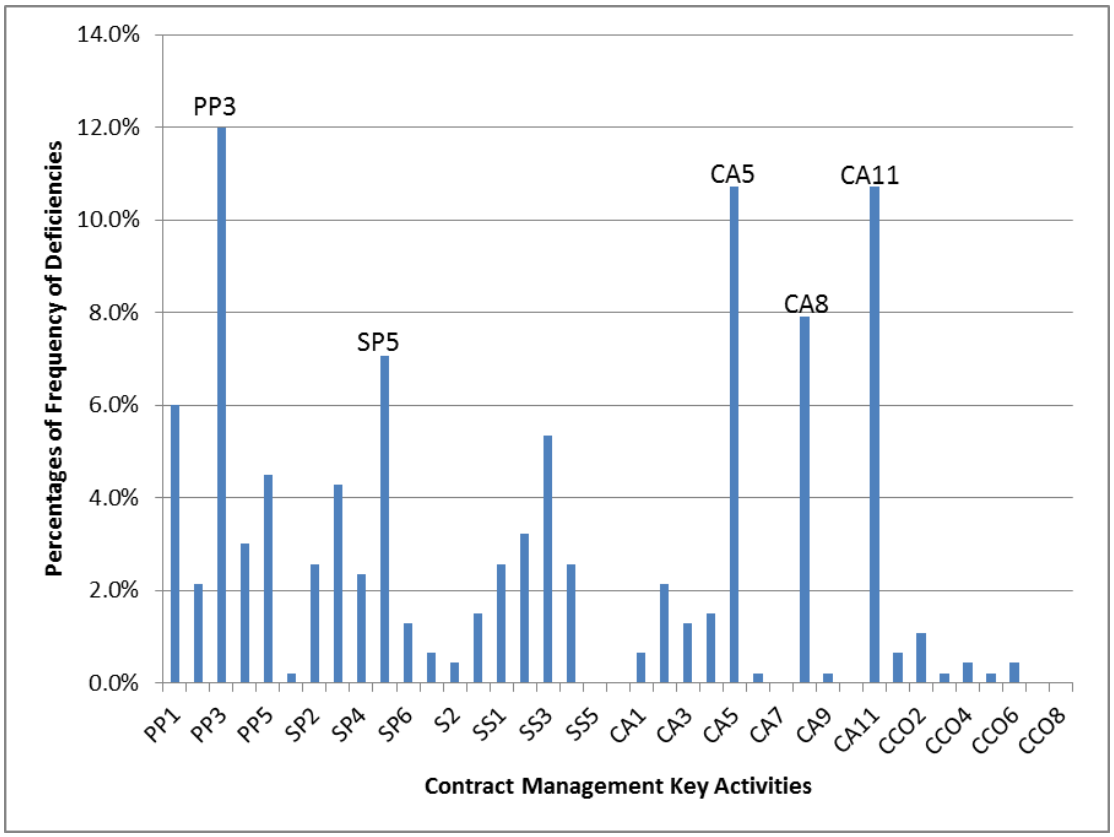
Figure 7. Overall Contract Management Processes Percentages of Frequency of Deficiencies



The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm.

As Figure 8 shows, when analyzed by Key Practice Activities and all the service departments, overall, similar frequencies of deficiencies were found in these Key Practice Activities: Acquisition Planning (PP-3), Monitor and measure contractor performance (CA-5), Comply with terms and conditions (CA-11), and Determine Contract Type/Incentive (SP-5). The most frequently occurring deficiencies in the contract management processes were observed during: Procurement Planning in Acquisition Planning (PP-3) (12.0%), Contract Administration in Monitor and measure contractor performance (CA-5) (10.7%), Comply with terms and conditions (CA-11) (10.7%), Contract Administration in Manage contractor payment price (CA-8) (7.9%), and Solicitation Planning in Determine Contract Type/Incentive (SP-5) (7.1%).

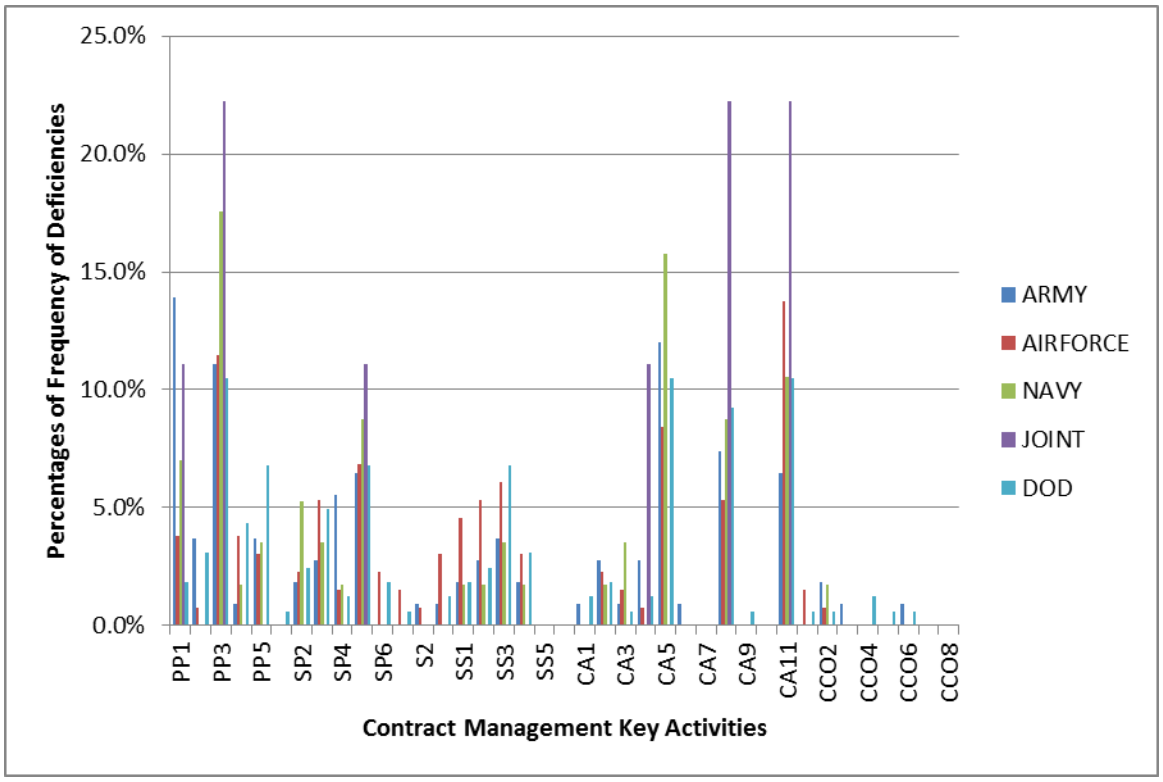
Figure 8. Overall Contract Management Key Practice Activities Percentages of Frequency of Deficiencies



The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm.

When analyzed by service department and by Key Process Activities, of the total Navy deficiencies, 17.5% were identified in Acquisition Planning (PP-3), 15.8% were identified in Monitor and measure contractor performance (CA-5), and 8.8% were identified in Determine Contract Type/ Incentive (SP-5) (Figure 9). Of the total Army deficiencies, 13.9% were identified in Requirements Analysis (PP-1), and 5.6% were identified in Develop Solicitation Documents (SP-4) (Figure 9). Of the total Air Force deficiencies, 13.7% were identified in Comply with terms and conditions (CA-11), and 5.3% were identified in Determine Evaluation Strategy (SP-3) (Figure 9). Of the total DOD Other Agencies deficiencies, 9.3% were identified in Contract Administration in Manage contractor payment price (CA-8), and 6.8% were identified in Market Research (PP-5) (Figure 9).

Figure 9. Contract Management Key Practice Activities Percentages of Frequency of Deficiencies by DOD Departments



The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm.

2. Internal Controls Weaknesses

The DODIG reported contracting deficiencies were also analyzed in terms of internal control components. Table 3 shows the results of the analysis of the reports presented by number of weaknesses in terms of the five components of internal control and related 17 principles by DOD service department. Overall, Table 3, which lists 17 principles, as stated by GAO (2014, p. 9), shows that the frequently occurring weakness areas of internal control components were in Control Environment, Control Activities, and Risk Assessment.

Table 3. Internal Control Components Number of Weaknesses by DOD Departments

Internal Control Principles	The Five components of internal control and 17 related principles	ARMY	AIR FORCE	NAVY	JOINT	DOD OTHER AGENCIES	OVERALL
	Control Environment						
CE-1	The oversight body and management should demonstrate a commitment to integrity and ethical values.	0	1	0	0	0	1
CE-2	The oversight body should oversee the entity's internal control system.	13	12	4	2	16	47
CE-3	Management should establish an organizational structure, assign responsibility, and delegate authority to achieve the entity's objectives.	15	14	9	1	22	61
CE-4	Management should demonstrate a commitment to recruit, develop, and retain competent individuals.	4	5	4	0	5	18
CE-5	Management should evaluate performance and hold individuals accountable for their internal control responsibilities.	1	1	2	0	1	5
	Sub Total of Control Environment	**32**	**32**	**19**	**3**	**44**	**132**
	Risk Assessment						
RA-1	Management should define objectives clearly to enable the identification of risks and define risk tolerances.	0	0	0	0	1	1
RA-2	Management should identify, analyze, and respond to risks related to achieving the defined objectives.	7	8	7	0	13	35
RA-3	Management should consider the potential for fraud when identifying, analyzing, and responding to risks.	2	5	0	0	3	10
RA-4	Management should identify, analyze, and respond to significant changes that could impact the internal control system.	0	0	0	0	0	0
	Sub Total of Risk Assessment	**9**	**13**	**7**	**0**	**17**	**46**
	Control Activities						
CA-1	Management should design control activities to achieve objectives and respond to risks.	1	0	0	0	0	1
CA-2	Management should design the entity's information system and related control activities to achieve objectives and respond to risks.		2	0	0	2	4
CA-3	Management should implement control activities through policies	13	13	6	2	22	56
	Sub Total of Control Activities	**14**	**15**	**6**	**2**	**24**	**61**
	Information and Communication						
IC-1	Management should use quality information to achieve the entity's objectives.	0	0	0	0	0	0
IC-2	Management should use quality information to achieve the entity's objectives.	4	1	0	0	2	7
IC-3	Management should externally communicate the necessary quality information to achieve the entity's objectives.	0	0	0	0	0	0
	Sub Total of Information and Communication	**4**	**1**	**0**	**0**	**2**	**7**
	Monitoring Activity						
MA-1	Management should establish and operate monitoring activities to monitor the internal control system and evaluate the results.	4	1	1	0	2	8
MA-2	Management should remediate identified internal control deficiencies on a timely basis.	0	0	0	0	1	1
	Sub Total of Monitoring Activity	**4**	**1**	**1**	**0**	**3**	**9**
	TOTAL OF ALL WEAKNESSES	**63**	**62**	**33**	**5**	**90**	**253**

The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm.

Overall, Table 3 shows the frequencies of the weaknesses of Internal Control Components and 17 principles by service departments. As Table 3 shows, the frequency of the weaknesses of the overall DOD departments in each Internal Control component was as follows: 132 times in Control Environment, 46 times in Risk Assessment, 61 times in Control Activities, 7 times in Information and Communication, and 9 times in Monitoring Activities. The highest weaknesses that occurred within the internal control components were in Control Environment (132), Control Activities (61), and Risk Assessment (46). Also, the highest weaknesses that occurred within each internal control principle were 61 times in Establishes structure, authority, and responsibility (CE-3), 56 times in Deploys through policies and procedures (CA-3), 47 times in Exercises oversight responsibility (CE-2), and 35 times in Identifies and analyzes risk (RA-2).

The analysis using percentages better explains the frequency of weakness area for each DOD department. Table 4, which lists 17 principles, as stated by GAO (2014, p. 9), shows the results of the analysis of the DODIG reports as percentages of internal control weaknesses to the number of reports for each individual service department. As Table 4 shows, the percentage of the highest weaknesses that occurred within the internal control components were 51.8% in Control Environment, 23.9% in Control Activity, and 18.0% in Risk Assessment. Also, based on the analysis, the percentages of the highest weaknesses that occurred within each internal control principle were 23.9% in Establishes structure, authority, and responsibility (CE-3), 22.0% in Deploys through policies and procedures (CA-3), 18.4% in Exercises oversight responsibility (CE-2), and 13.7% in Identifies and analyzes risk (RA-2).

Table 4. Internal Control Components Percentages of Weaknesses by DOD Departments

Internal Control Principles	The Five components of internal control and 17 related principles	ARMY	AIR FORCE	NAVY	JOINT	DOD OTHER AGENCIES	OVERALL
	Control Environment						
CE-1	The oversight body and management should demonstrate a commitment to integrity and ethical values.	0.0%	1.6%	0.0%	0.0%	0.0%	0.4%
CE-2	The oversight body should oversee the entity's internal control system.	20.3%	19.0%	12.1%	40.0%	17.8%	18.4%
CE-3	Management should establish an organizational structure, assign responsibility, and delegate authority to achieve the entity's objectives.	23.4%	22.2%	27.3%	20.0%	24.4%	23.9%
CE-4	Management should demonstrate a commitment to recruit, develop, and retain competent individuals.	6.3%	7.9%	12.1%	0.0%	5.6%	7.1%
CE-5	Management should evaluate performance and hold individuals accountable for their internal control responsibilities.	1.6%	1.6%	6.1%	0.0%	1.1%	2.0%
	Sub Total of Control Environment	**51.6%**	**52.4%**	**57.6%**	**60.0%**	**48.9%**	**51.8%**
	Risk Assessment						
RA-1	Management should define objectives clearly to enable the identification of risks and define risk tolerances.	0.0%	0.0%	0.0%	0.0%	1.1%	0.4%
RA-2	Management should identify, analyze, and respond to risks related to achieving the defined objectives.	10.9%	12.7%	21.2%	0.0%	14.4%	13.7%
RA-3	Management should consider the potential for fraud when identifying, analyzing, and responding to risks.	3.1%	7.9%	0.0%	0.0%	3.3%	3.9%
RA-4	Management should identify, analyze, and respond to significant changes that could impact the internal control system.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Sub Total of Risk Assessment	**14.1%**	**20.6%**	**21.2%**	**0.0%**	**18.9%**	**18.0%**
	Control Activity						
CA-1	Management should design control activities to achieve objectives and respond to risks.	1.6%	0.0%	0.0%	0.0%	0.0%	0.4%
CA-2	Management should design the entity's information system and related control activities to achieve objectives and respond to risks.	0.0%	3.2%	0.0%	0.0%	2.2%	1.6%
CA-3	Management should implement control activities through policies	20.3%	20.6%	18.2%	40.0%	24.4%	22.0%
	Sub Total of Control Activities	**21.9%**	**23.8%**	**18.2%**	**40.0%**	**26.7%**	**23.9%**
	Information and Communication						
IC-1	Management should use quality information to achieve the entity's objectives.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IC-2	Management should use quality information to achieve the entity's objectives.	6.3%	1.6%	0.0%	0.0%	2.2%	2.7%
IC-3	Management should externally communicate the necessary quality information to achieve the entity's objectives.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Sub Total of Information and Communication	**6.3%**	**1.6%**	**0.0%**	**0.0%**	**2.2%**	**2.7%**

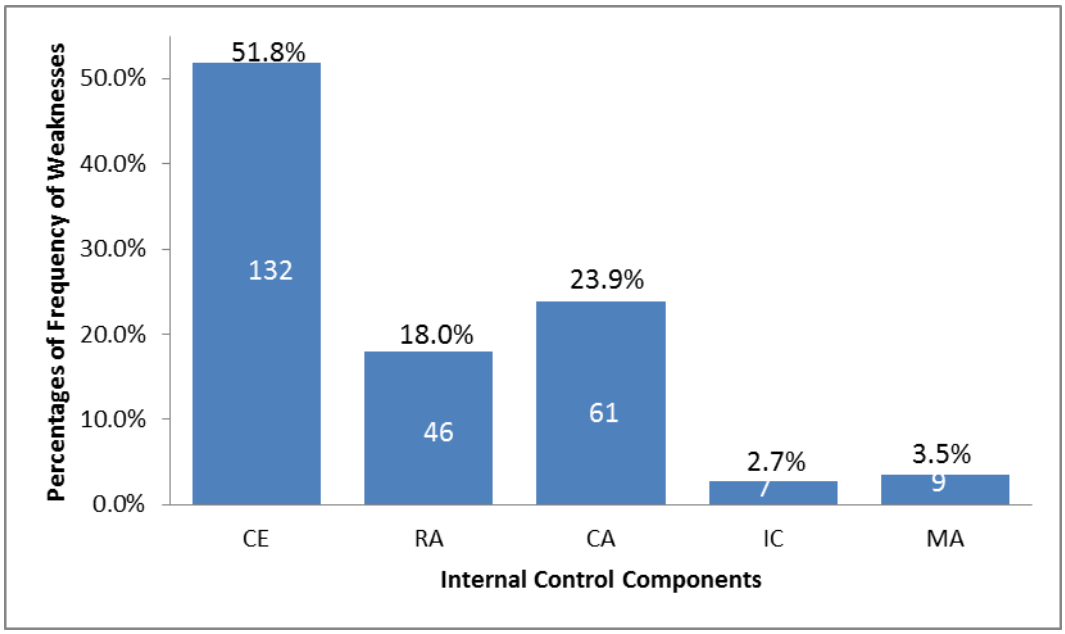
Internal Control Principles	The Five components of internal control and 17 related principles	ARMY	AIR FORCE	NAVY	JOINT	DOD OTHER AGENCIES	OVERALL
	Monitoring Activity						
MA-1	Management should establish and operate monitoring activities to monitor the internal control system and evaluate the results.	6.3%	1.6%	0.0%	0.0%	2.2%	2.7%
MA-2	Management should remediate identified internal control deficiencies on a timely basis.	0.0%	0.0%	0.0%	0.0%	1.1%	0.4%
	Sub Total of Monitoring Activity	**6.3%**	**1.6%**	**3.0%**	**0.0%**	**3.3%**	**3.5%**
	TOTAL OF ALL WEAKNESSES	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm.

When analyzed by service departments and internal control principles, of the total Army weaknesses, 51.6% were identified in Control Environment, 21.9% were identified in Control Activities, and 14.1% in Risk Assessment (Table 4). Of the total Air Force weaknesses, 52.4% were identified in Control Environment, 23.8% were identified in Control Activities, and 20.6% were identified in Risk Assessment (Table 4). Of the total Navy weaknesses, 57.6% were identified in Control Environment, 21.2% were identified in Risk Assessment, and 18.2% were identified in Control Activities (Table 4). Of the total DOD Others Agencies, 48.9% were identified in Control Environment, 26.7% in Control Activities, and 18.9% in Risk Assessment (Table 4). A graph format better reveals the dominant frequencies in weaknesses for the DOD IG reports as shown in Figures 10, 11, and 12.

As Figure 10 shows, overall, the most frequently occurring weakness in the five internal control components were found in Control Environment (CE) (51.8%). The second most frequently occurring weaknesses were found in Control Activities (CA) (23.9%), and the third most frequently were found in Risk Assessment (RA) (18.0%).

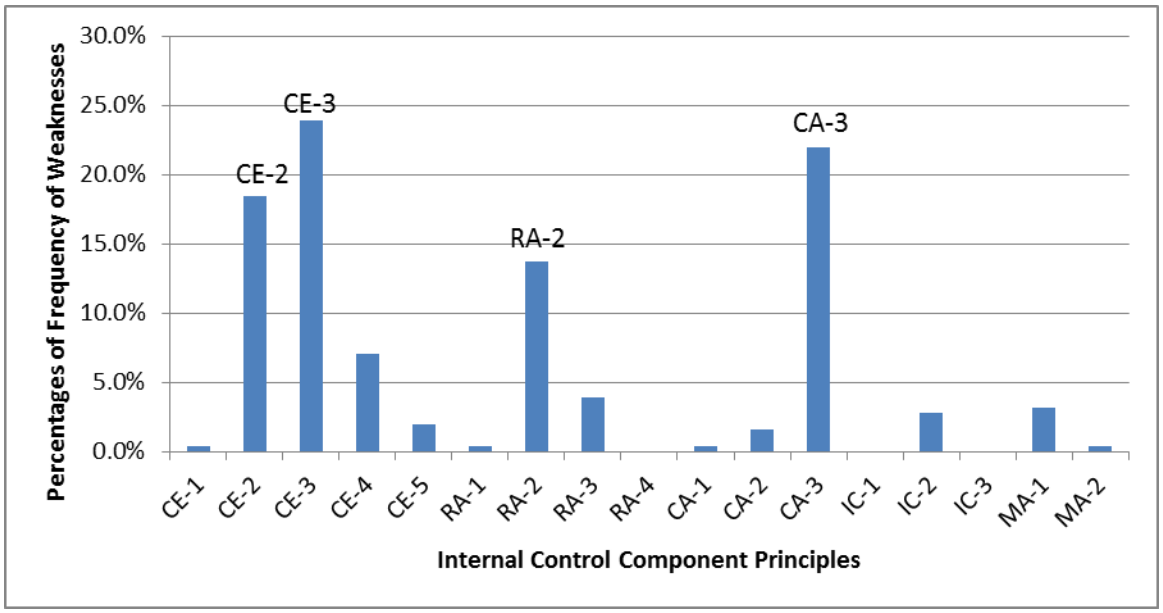
Figure 10. Overall Internal Control Components Percentages of Frequency of Weaknesses



The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm.

As Figure 11 shows, overall, the most frequently occurring weakness in the 17 principles was found in Establishes structure, authority, and responsibility (CE-3) (23.9%). The second most frequently occurring weaknesses were found in Deploys through policies and procedures (CA-3) (22.0%). The third most frequently occurring weaknesses were found in Exercises oversight responsibility (CE-2) (18.4%).

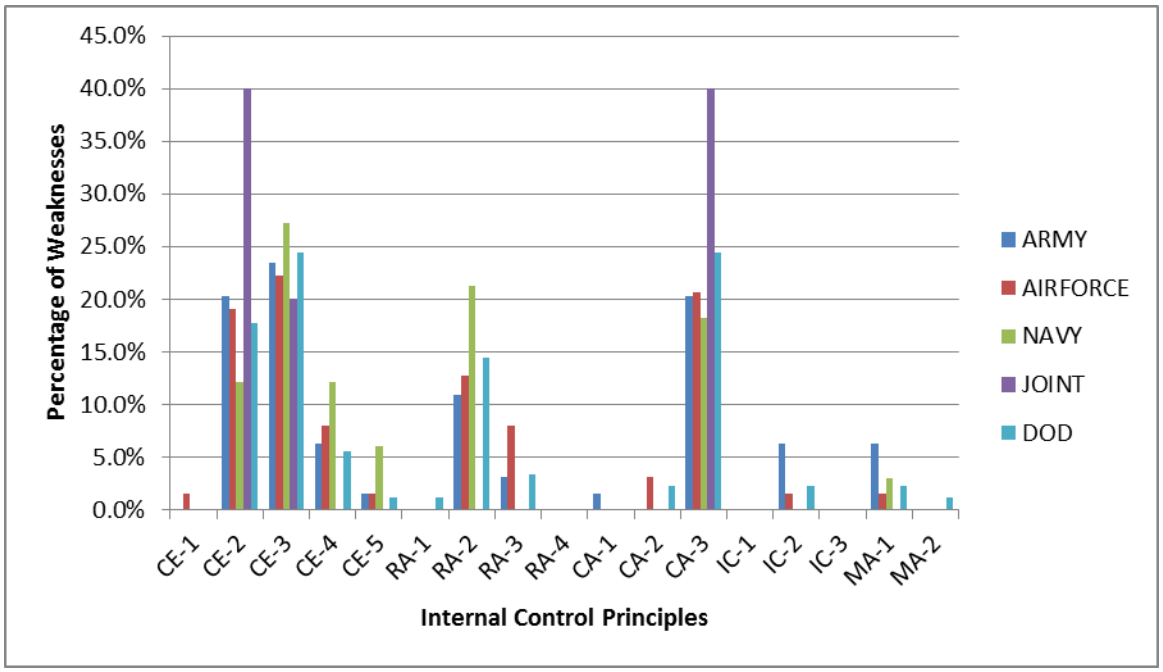
Figure 11. Overall Internal Control Components and Related 17 Principles Percentages of Frequency of Weaknesses



The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm.

When analyzed by service departments and internal control principles, of the total Army weaknesses, 23.4% were identified in Establishes structure, authority, and responsibility (CE-3), 20.3% were identified in Exercises oversight responsibility (CE-2), and 20.3% in Deploys through policies and procedures (CA-3) (Figure 12). Of the total Air Force weaknesses, 22.2% were identified in Establishes structure, authority, and responsibility (CE-3), 20.6% were identified in Deploys through policies and procedures (CA-3), and 19.0% were identified in Exercises oversight responsibility (CE-2) (Figure 12). Of the total Navy weaknesses, 27.3% were identified in Establishes structure, authority, and responsibility (CE-3), 21.2% were identified in Identifies and analyzes risk (RA-2), and 18.2% were identified in Deploys through policies and procedures (CA-3) (Figure 12). Of the total DOD Others Agencies, 24.4% were identified in Establishes structure, authority, and responsibility (CE-3), 24.4% in Deploys through policies and procedures (CA-3), and 17.8% in Exercises oversight responsibility (CE-2) (Figure 12).

Figure 12. 17 Principles Percentages of Frequency of Weaknesses by DOD Departments



The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm.

3. Correlation between Contract Management Deficiencies and Internal Controls Weaknesses

In general, when the relationship between contract management deficiencies and internal controls weaknesses were analyzed, weak correlations were found. However, there were some relationships that showed a moderate positive correlation between deficiencies in contract management processes and weaknesses in internal control components in each DODIG report. There were moderate positive correlations between Required Sources of Supply (PP-2) and Evaluates and communicates deficiencies (MA-2) at 0.306462, Determine Terms and Condition (SP-6) and Demonstrates commitment to integrity and ethical values (CE-1) at 0.401293, Conduct conferences (CA-1) and Selects and develops control activities (CA-1) at 0.573436, Conduct conferences (CA-1) and Conduct ongoing and/or separate evaluations (MA-1) at 0.389815. Table 5 shows the results of those correlations between the key activities of the contract management processes and the 17 principles related to internal control components that were

moderately positive in each DODIG report. Table 5 does not depict any of the top three areas of key activities in contract management deficiencies or principles in internal controls weaknesses that were identified from the analysis.

Table 5. Correlation between Contract Management Deficiencies and Internal Controls Weaknesses

Contract Management Key Practice Activity	17 Principles related to Internal Control Component	Correlation
PP-2 (Required Sources of Supply and Services in Procurement Planning)	MA-2(Evaluates and communicates deficiencies Monitoring Activity)	0.306462
SP-6 (Determine Terms and Condition in Solicitation Planning)	CE-1(Demonstrates commitment to integrity and ethical values in Control Environment)	0.401293
CA-1(Conduct conferences in Contract Administration)	CA-1 (Selects and develops control activities in Control Activity)	0.573436
CA-1(Conduct conferences in Contract Administration)	MA-1(Conduct ongoing and/or separate evaluations in Monitoring Activity)	0.389815

The 149 Department of Defense IG reports used in this analysis were obtained from the DODIG website at http://www.dodig.mil/pubs/index.cfm.

C. IMPLICATIONS OF FINDINGS

1. Contract Management Processes

Based on the most frequent deficiencies identified within the key process areas, there are implications with concerns to risks that need to be addressed. These frequencies appeared in Procurement Planning, Solicitation Planning, and Contract Administration. The patterns of deficiencies appear to be uniform across the service departments as having risk areas that need to be mitigated in the contract management processes. The DOD Other Agencies, Navy, Army, and Air Force appear to have higher deficiencies in Contract Administration. These implications of risk in key process areas make it difficult for DOD to provide assurance with integrity, accountability, and transparency in the contract management processes and also show failure in using appropriate internal controls.

In Procurement Planning, the deficiencies that occurred most frequently were in Acquisition Planning due to not using full and open competition (PP-3), which is a risk for assuring transparency, and fair prices. The contracting officers used incorrect commercial item determinations causing greater difficulties in interoperability and potential waste. In addition, contracting officers could not determine whether it was more economical to lease or purchase equipment in many circumstances allowing for a risk in accountability and waste of money and equipment. Another major risk and failure was not using proven methods like acquisition streamlining implicating that the government might not be receiving the most efficient and effective resources to design, develop, and produce systems.

In Solicitation Planning, the deficiencies that occurred most frequently were in Determining the contract type and incentive deficiencies (SP-5). The DOD service departments could not ensure that they were obtaining the best value for the money spent and could not ensure that they were paying fair and reasonable prices for the government. The DOD service departments failed to select the correct type of contract in many instances costing the government millions in unnecessary waste and risk in accountability. An example of this deficiency was a lack of price competition, price analysis, cost analysis, or adequacy of the contractor's accounting system data or past performance.

In Contract Administration, the deficiencies that occurred most frequently were in Monitor and measure contract performance (CA-5) and Comply with terms and conditions (CA-11). The DOD service department deficiencies occurred due to lack of oversight and lack of surveillance of the contractor's performance as required by FAR 46 to ensure efficiency and effectiveness of the contractor performance. The risk to DOD service departments of not monitoring the contractor performance is that the government could be paying the contractor for work that the contractor is not performing. If the government is not monitoring the contractor, then the government would not know if the contractor is meeting the contract specifications. Lack of contractor surveillance might have a direct impact on the warfighter's needs not being met.

2. Internal Controls

Based on the findings, the internal control component weaknesses that occurred most frequently were in Control Environment, specifically exercising oversight responsibility (CE-2) and establishing structure, authority, and responsibility (CE-3). As explained in Chapter II, the Control Environment is the foundation for the other components of internal controls. The weaknesses in Control Environment may affect the effectiveness of internal controls. As a result of these weaknesses, the DOD cannot meet the organizations objectives because they cannot establish sufficient standards, processes, and structures. The risk in not meeting the objectives may impact the warfighter's needs not being met.

Another area of concern that had the second most frequently occurring weaknesses of the internal control components were in Control Activities, specifically in implementing Control Activities through policies and procedures (CA-3). The weaknesses in Control Activities may have a risk in affecting the ability of implementation towards achieving the organization's objectives. As a result, the DOD may have limited assurance about following appropriate practices to obtain the goods and services required to meet the warfighter's needs.

Yet, another area of concern that had the third most frequently occurring weaknesses of the internal control components were in Risk Assessment, specifically in Identifies and analyzes risk (RA-2). The weaknesses in Risk Assessment may be a result of overlooking specific threats that may be critical functions for an organization to have an effective internal control system. As a result, the DOD may fail to accomplish the organization's objectives.

Even though there was not a high level of internal control weaknesses in monitoring activities there was a moderate correlation between Monitoring Activities and Procurement Planning and Contract Administration. As discussed in Chapter II, Monitoring Activities are crucial to making sure that internal controls remain effective through evolving objectives, environments, regulations, resources, and risks. Monitoring

Activities are vitally important to make sure the all the internal control components are working properly.

D. RECOMMENDATIONS

1. Introduction

DOD leadership should be aware of deficiencies in contract management and the weaknesses in internal controls based on these 149 DODIG reports. DOD leaders should also be aware of all of these problems because contract management has been on the high risk list since 1992. Yet, the problems that are repeatedly noted by the DODIG reports related to contract management processes include: lack of acquisition planning, lack of determining the contract type and incentive, lack of monitoring and measuring the contractor's performance for contract management, and lack of exercising oversight responsibility. The issues repeatedly noted by the DODIG reports for internal control components include: establish structure, establish authority and responsibility, identify and analyze risk, and deploy control activities through policies and procedures for internal controls. In order to improve the contract management processes and internal control components, the DOD will need to enhance its integrity, accountability, and transparency. Several recommendations addressed to fix the problems are improving or adding more training, developing additional policies and guidance, strengthening implementations abilities, and enforcing oversight of contracts.

2. Contract Management

a. Improving or Adding More Training

The first recommendation is for the DOD to improve its training by giving more attention to the contract management processes, specifically, Procurement Planning, Solicitation Planning, and Contract Administration. Enhancing training in contract management processes will reduce the risks and help improve collaboration with government and industry personnel, obtain better value for money spent, and ensure the warfighter's needs are met. As mentioned in the literature review, the DOD acquisition expenditure has increased considerably, while the workforce is experiencing many new

acquisition personnel and the looming retirements of the baby boomer generation. This is a problem that can be handled with the right implementation of more training and cross training of acquisitions personnel's knowledge. It should be noted that the recommendation for additional training is not necessarily just for the contracting workforce, but for the other members of the acquisition workforce that have roles and responsibilities in the procurement of supplies and services. A recommendation to all DOD departments is that leadership should ensure that training of the program managers, senior executives, requirements personnel, technical representatives and CORs should be a priority, and this should include ongoing professional workshops and training classes in contract management processes. If the government wants to save more money, it has to invest in appropriately training all members of the acquisition workforce. There are a great deal of lessons to be learned from the DODIG reports that should also be discussed amongst program managers, senior executives, requirements personnel, technical representatives and CORs so that these documented deficiencies and weaknesses can be reduced in the future.

b. Practice Policies and Procedures Properly

The second recommendation to the DOD departments is to enforce the practice of procurement policies and procedures and offer appropriate training for senior executives, program managers, contracting officers, requirements personnel, technical representatives, and CORs. Senior executives, program managers, requirements personnel, technical representatives, and CORs involvement will help properly develop the appropriate requirements and documents during the procurement planning and solicitation planning processes. The contracting officer should also follow the guidelines in the FAR by using full and open competition when possible, making the correct commercial item determinations, making appropriate determinations on when to lease or purchase equipment, and using acquisition streamlining to ensure efficient and effective resources for acquisition procurements. Yet, the DODIG continues to find similar patterns of deficiencies in these areas even with all the DOD policies, statutes, and the FAR, which require compliance with contract management processes. Program managers, senior executives, requirements personnel, technical representatives and CORs

need to ensure practice and compliance with acquisition policies and procedures. The contracting officers should be there to help assist and advise them in getting training or knowledge to understanding compliance with acquisition policies and procedures.

c. Proper Oversight of Contractors

The third recommendation to the DOD departments is to personally assign responsibility to senior executives, base commanders, program managers, contracting officers, requirements personnel, technical representatives, and CORs involved with the procurement for providing oversight of contractors. This will not only instill personal pride within the departments, but will also make the entire workplace an environment that provides for integrity, accountability, and transparency of the government's resources. The DODIG data suggest that CORs are doing a poor job of monitoring and measuring the contractors' performance due to a lack of oversight and surveillance. It is recommended that the DOD department's branches emphasize the proper oversight of contractors and the importance of CORs to all senior executives, base commanders for installations, program managers for weapon systems, to assist with contractor surveillance. Senior executives, program managers, and base commanders should realize that contractors performing missions in support of their organization are an extension of their organizational structure and an extension of their people. An enhanced emphasis on oversight of contractors performing functions should be the focus. The people who currently provide oversight on the contractor are the CORs. The CORs are not contracting officers, but they are technical representatives that need additional training on oversight of contractor performance.

Since the DODIG reports identified concerns with contractor performance, it is recommended that senior executives, program managers, contracting officers, requirements personnel, technical representatives, and CORs document their oversight and follow up with these issues by having a healthy professional relationship with both the contractor and government personnel. Also, if the DOD documents and publishes the lessons learned with contract management processes then the senior executives, base commanders, program managers, contracting officers, requirements personnel, technical

representatives, and CORs may want to improve the deficient contract management processes.

3. Internal Controls

a. Additional Policy and Guidance

The first recommendation is for the DOD to establish additional policies and guidance in order to improve the Control Environment. For example, the DOD should create more procedures so it can maintain or update the organization's record files appropriately. Also, the DOD should establish more internal control procedures for contract management to determine the independence of offerors or sellers for noncompetitive contracts before depending on the solicitation planning processes to decide price reasonableness, implement an effective cost or pricing data analysis, and follow the legislative guidance.

b. Practice Policies and Procedures Properly

The second recommendation is for the DOD to practice established policies and procedures properly in order to improve the Control Activities. Even though the organization has sufficient policies and guidance, the organization cannot achieve its objective without practicing those policies and guidance. DOD should maintain practicing established policies and procedures by appropriate oversight, education, and training. Also, DOD should continuously monitor and evaluate the organization's activities to identify the potential or existing issues.

c. Strengthen Oversight

The third recommendation is for the DOD to strengthen oversight with CORs in order to improve the Control Environment, Control Activities, and Risk Assessment. As mentioned in Chapter II, the oversight body should properly oversee the organization's development and implementation of internal controls. The DOD should establish an effective oversight strategy, policy, and procedures to implement appropriate oversight within the contract management processes. For example, additional oversight would help

improved contract management processes such as Solicitation Planning, Contract Administration, and Procurement Planning. Also, the DOD should hire personnel who have the appropriate skills, knowledge, and relevant expertise so that the organizations can reduce contract management deficiencies and internal control weaknesses.

E. SUMMARY

This chapter presented the findings of this research. Also presented were the implications of these findings and recommendations to the DOD for improving the contract management processes and the effectiveness of the internal controls based on the findings. In the analysis, all DOD departments displayed substantially similar patterns of deficiencies and weaknesses. In general, DOD contract management processes and internal control components should be well identified and understood by the DOD, but they still pose problems in the identified GAO high risk category. By implementing some of the recommendations provided, the DOD may decrease their deficiencies in contract management and weaknesses in internal controls. The next chapter summarizes the research, presents the conclusion, and identifies areas for further research.

V. SUMMARY, CONCLUSIONS, AND AREAS FOR FURTHER RESEARCH

A. SUMMARY

The Department of Defense (DOD) spends over $300 billion dollars each year on contracts to sustain the organization as an operational military force (Government Accountability Office [GAO], 2015). However, the DODIG has identified many deficiencies within DOD contract management. The DODIG outlines these deficiencies in their DODIG reports. Each of these reported deficiencies is related to material weaknesses in internal controls. The purpose of this research was to analyze DODIG reported deficiencies to determine to which contract management processes these deficiencies are related and to which internal control components these weaknesses are related.

B. CONCLUSION

1. Research Questions

The following sections are the study's research questions and summary of the answers to those questions.

a. Which Contract Management Processes Are Related to the DODIG Reported Deficiencies?

The highest deficiencies found in the contract management processes and key areas across the service departments occurred in the following areas: Procurement Planning: Acquisition planning; Solicitation Planning: Determine contract type and incentive; and Contract Administration: Monitor and measure contract performance. This pattern appears to be uniform across the service departments as having risk areas that need to be mitigated in the contract management processes. The DOD Other Agencies, Navy, Army, and Air Force appear to have higher deficiencies in Contract Administration. Each DOD department had a similar frequency of deficiencies in their contract management processes, and overall, the percentages indicate that all DOD departments had similar deficiencies in these three top areas.

b. Which internal control components are related to the DODIG-reported weaknesses?

The weaknesses found in internal control components frequently occurred in the areas of Control Environment, Control Activities, and Risk Assessment. The Control Environment had the biggest number of the weaknesses of internal controls in the DOD procurement processes and procedures. Each DOD department has similar frequencies of internal control weaknesses. According to the analysis, Exercises oversight responsibility (CE-2), Establishes structure, authority, and responsibility (CE-3), Identifies and analyzes risk (RA-2), Deploys through policies and procedures (CA-3) may be the most significant problem areas for internal controls in the DOD.

c. What patterns or consistencies does the data from the DOD Inspector General reports show regarding the deficiencies in contract management processes and weaknesses in internal control components?

The analysis of the DODIG data presented the frequencies of deficiencies in the DOD contract management processes and weaknesses in internal control components. In the analysis, all of the DOD departments displayed substantially similar patterns in the areas of deficiencies and weaknesses. This did not allow singling out any particular department for significant nonconformity from the overall patterns in the DOD departments. In general, both contract management deficiencies and internal control weaknesses should be well identified and understood by the DOD; however, they still pose problems in the identified GAO high risk category.

2. Areas for Further Research

This section has three recommendations for further research. The first recommendation is to continue the existing study by analyzing more DODIG reports from 2011 to 2015 or from a current, future year and also by creating other modifications to the data collection of publicly available reports. The second recommendation for continuing research is to analyze GAO reports to identify deficiencies and weaknesses as was done in this study. The third and final recommendation is to continue looking for more opportunities to prevent fraud, waste, and abuse in procurement by following the contract management processes and internal control components. For example, analyzing

the amount of dollars spent by DOD and number of contracts conducted to see if there is a correlation of deficiencies found in contract management processes and weaknesses found in internal control components would be appropriate.

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APPENDIX. DODIG REPORTS USED IN DATA COLLECTION

DODIG Report No. 2010-087	DODIG Report No.2008-134
DODIG Report No.2010-085	DODIG Report No.2008-129
DODIG Report No.2010-081	DODIG Report No.2008-127
DODIG Report No.2010-080	DODIG Report No.2008-107
DODIG Report No.2010-079	DODIG Report No.2008-100
DODIG Report No.2010-078	DODIG Report No.2008-099
DODIG Report No.2010-068	DODIG Report No.2008-097
DODIG Report No.2010-066	DODIG Report No.2008-094
DODIG Report No.2010-064	DODIG Report No.2008-089
DODIG Report No.2010-063	DODIG Report No.2008-086
DODIG Report No.2010-057	DODIG Report No.2008-082
DODIG Report No.2010-055	DODIG Report No.2008-066
DODIG Report No.2010-054	DODIG Report No.2008-064
DODIG Report No.2010-052	DODIG Report No.2008-057
DODIG Report No.2010-051	DODIG Report No.2008-051
DODIG Report No.2010-049	DODIG Report No.2008-050
DODIG Report No.2010-047	DODIG Report No.2008-048
DODIG Report No.2010-046	DODIG Report No.2008-038
DODIG Report No.2010-035	DODIG Report No.2008-037
DODIG Report No.2010-028	DODIG Report No.2008-036
DODIG Report No.2010-027	DODIG Report No.2008-032
DODIG Report No.2008-135	DODIG Report No.2008-030

DODIG Report No.2008-007	DODIG Report No.2007-042
DODIG Report No.2007-130	DODIG Report No.2007-038
DODIG Report No.2007-128	DODIG Report No.2007-036
DODIG Report No.2007-124	DODIG Report No.2007-032
DODIG Report No.2007-119	DODIG Report No.2007-026
DODIG Report No.2007-118	DODIG Report No.2007-023
DODIG Report No.2007-115	DODIG Report No.2007-009
DODIG Report No.2007-112	DODIG Report No.2007-008
DODIG Report No.2007-110	DODIG Report No.2007-007
DODIG Report No.2007-109	DODIG Report No.2007-005
DODIG Report No.2007-107	DODIG Report No.2006-123
DODIG Report No.2007-106	DODIG Report No.2006-122
DODIG Report No.2007-103	DODIG Report No.2006-115
DODIG Report No.2007-098	DODIG Report No.2006-111
DODIG Report No.2007-084	DODIG Report No.2006-109
DODIG Report No.2007-079	DODIG Report No.2006-105
DODIG Report No.2007-078	DODIG Report No.2006-104
DODIG Report No.2007-075	DODIG Report No.2006-103
DODIG Report No.2007-066	DODIG Report No.2006-102
DODIG Report No.2007-062	DODIG Report No.2006-101
DODIG Report No.2007-055	DODIG Report No.2006-100
DODIG Report No.2007-047	DODIG Report No.2006-097
DODIG Report No.2007-044	DODIG Report No.2006-093

DODIG Report No.2006-088	DODIG Report No.2004-113
DODIG Report No.2006-087	DODIG Report No.2004-112
DODIG Report No.2006-080	DODIG Report No.2004-111
DODIG Report No.2006-073	DODIG Report No.2004-110
DODIG Report No.2006-066	DODIG Report No.2004-104
DODIG Report No.2006-065	DODIG Report No.2004-103
DODIG Report No.2006-061	DODIG Report No.2004-102
DODIG Report No.2006-059	DODIG Report No.2004-094
DODIG Report No.2006-058	DODIG Report No.2004-093
DODIG Report No.2006-055	DODIG Report No.2004-084
DODIG Report No.2006-029	DODIG Report No.2004-073
DODIG Report No.2006-010	DODIG Report No.2004-070
DODIG Report No.2006-007	DODIG Report No.2004-069
DODIG Report No.2006-006	DODIG Report No.2004-064
DODIG Report No.2006-004	DODIG Report No.2004-057
DODIG Report No.2006-001	DODIG Report No.2004-056
DODIG Report No.2005-096	DODIG Report No.2004-055
DODIG Report No.2005-091	DODIG Report No.2004-052
DODIG Report No.2005-037	DODIG Report No.2004-047
DODIG Report No.2005-028	DODIG Report No.2004-046
DODIG Report No.2005-027	DODIG Report No.2004-037
DODIG Report No.2005-009	DODIG Report No.2004-020
DODIG Report No.2005-005	DODIG Report No.2004-015

DODIG Report No.2004-012
DODIG Report No.2003-120
DODIG Report No.2003-115
DODIG Report No.2003-113
DODIG Report No.2003-106
DODIG Report No.2003-099
DODIG Report No.2003-090
DODIG Report No.2003-083
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